Furthering Cancer Education in Nova Scotia:

Physicians Needs Assessment

Executive Summary

November 2002

Presented by:

Joan Sargeant, BN MEd
Director
Program Development and Evaluation
Dalhousie Continuing Medical Education

Suzanne Ferrier, BSc MSc
Research Associate
Dalhousie Continuing Medical Education

Elaine Loney, BSN MSc
Qualitative Analyst

In collaboration with:

Anne Murray, BSc MAEd
Education Coordinator
Cancer Care Nova Scotia

DALHOUSIE
University
Continuing Medical Education

Cancer Care Nova Scotia

Executive Summary

CANCER CARE NOVA SCOTIA (CCNS) has recently undertaken a number of collaborative initiatives involving patients and health care professionals, to identify and respond to issues in the provision of cancer care in Nova Scotia. In June 2000, *CCNS* initiated the Physicians Advisory Committee to begin to address the learning and clinical needs of Nova Scotia physicians with respect to cancer care. In addition to identifying a number of general concerns, it became clear that a thorough assessment would be beneficial. As a result, *CCNS* invited the Dalhousie University Office of Continuing Medical Education (CME), an office skilled in conducting physicians needs assessments, to partner in a comprehensive needs assessment of physicians' learning and support needs.

The objectives of the needs assessment were to address the following questions:

1. What are the current challenges faced by Nova Scotian family physicians and community specialist physicians (i.e., general internists, general surgeons, pediatricians and obstetricians/ gynecologists working outside the Dalhousie academic medical center), with respect to the continuum of cancer care delivery; prevention, screening, diagnosis, treatment and continuing care/palliation?
2. What are the learning needs of Nova Scotian family practitioners and community specialists with respect to cancer care delivery (prevention, screening, diagnosis, treatment and continuing care/palliation)?
3. What are the preferred learning methods for family and community specialists to address these needs?
4. What is the preferred physician leadership model within the District Cancer Program?
5. What are the perceptions of oncologists and patients regarding family physicians and community specialists learning needs in cancer care?

Data collection methods included a literature search, family physician and community specialist questionnaires, interviews with oncologists at cancer centres at the Queen Elizabeth II Health Sciences Centre and Cape Breton Healthcare Complex, the *CCNS* Patient Navigation Qualitative Study, and interdisciplinary focus groups. (The latter will be reported separately in November 2002.)

Conclusions and recommendations related to study objectives are drawn from key results and are summarized below, in order of priority within each section. Please refer to the full report for complete conclusions and recommendations.

CONCLUSIONS

Section 1: Current Challenges in Cancer Care

- Gaps and inefficiencies in communication and transfer of information among members of the cancer care team, especially among family physicians, community specialists, and oncologists, interfere with the provision of timely, effective and compassionate care.
- Over 50% of family physicians indicated that their patients had reported difficulty navigating their way through the cancer care process, supporting findings of the Patient Navigation Study.
- Several factors influence physicians' ability to provide optimal care. These include systemic issues; i.e., lack of time and reimbursement schedules; public and patient awareness and education, especially regarding cancer prevention and screening; and lack of evidence in some aspects of care; e.g., screening for prostate cancer.
- Physicians are not aware of and/or under-utilize several community resources; e.g., Nova Scotia's Pink Rose Program, Canadian Cancer Society's Information Service.

Section 2: Educational Needs

- Respondents identified specific perceived learning needs across the continuum of cancer care (prevention, screening, diagnosis, treatment and continuing care/palliation).
- Communication between patients and physicians is an important learning area; especially compassionate delivery of the diagnosis and grief management skills.
- Family physicians and patients both indicated a need for family physicians to play a larger role in their patients' cancer care.

Section 3: Learning Methods and Clinical Resources

- Physicians indicated that "informal" learning methods were more highly preferred as compared to formal CME programs. Family physicians rated "checklists for continuing care" most highly, followed by "a help line to oncologists". Community specialists rated "a database of oncologist resources" most highly.
- The preferred formal learning method was "combined lecture and interactive activities".
- The preferred types of CME programs were those which incorporated cancer care into existing Dalhousie CME programs and 1-2 day symposia.
- Family physicians in 5 of the 7 District Health Authorities outside the two tertiary care centers indicated they would prefer to attend CME programs locally rather than in a central location.
- The most valuable clinical resources are local palliative care programs (where available) and telephone consultations with oncologists. Web sites were used by less than 60% of respondents.
- Oncologists are very willing to assist with CME interventions for community physicians, including development of appropriate checklists for continuing care, and stressed the value of interactive, patient-related teaching methods.

Section 4: District Cancer Program

- Most oncologists interviewed were unaware of the proposed District Cancer Program (DCP).
- Family physicians preferred roles in providing cancer care in their communities included screening and early detection, prevention, pain and symptom management, and supportive care. However, these were influenced by factors such as year of graduation, size of community, number of patients with cancer seen annually. Oncologists indicated that their role in the DCP could be to educate and provide support to the Medical Coordinator.
- Slightly over half of respondents believed a part-time Medical Coordinator could be of assistance. Suggested roles for this position: provide advice concerning side effects of therapy and chemo-therapy administration; teach about therapies and side effect management; coordinate chemotherapy outside the two cancer centers, and liase between the cancer centers and community physicians.

RECOMMENDATIONS

Current Challenges in Cancer Care

1. Respond to identified gaps and inefficiencies in communication and information-sharing among the health care team, particularly family physicians, community specialists and oncologists, by:
   a. Establishing a collaborative working group comprised of representative family physicians, community specialists, oncologists, and patients.
   b. Developing a comprehensive approach to respond to patients difficulties navigating the cancer care process, building upon initiatives undertaken to date.
   c. Exploring how family physicians can play a larger role in the care of their cancer patients and the steps required to implement this, utilizing a collaborative working group of family physicians, community specialists, oncologists and patients.
2. Address systemic factors which interfere with physicians' ability to provide comprehensive cancer care; e.g, lack of reimbursement codes which reflect the time required for patient counseling throughout the continuum of cancer care. This should be undertaken in collaboration with appropriate bodies; e.g, Medical Society of Nova Scotia, Department of Health.
3. Increase awareness and use of community resources using a comprehensive approach. Suggested initiatives include:
   - Receive specific feedback from physicians regarding the most useful resources and the most effective way to provide information about them.
   - Learn how other provincial cancer care programs have addressed this problem.
4. Undertake initiatives to improve patient and public education addressing the importance of cancer prevention, accepting responsibility for own health, and screening for breast, cervical and prostate cancer. Suggested initiatives include:
   - Form a working group of patients, physicians and other health professionals to serve as an advisory committee, to determine areas of greatest need and advise regarding material development, dissemination, literacy levels, etc.
   - Compile a resource of public and patient educational approaches used in other provincial cancer care programs.
5. Raise awareness about the District Cancer Program through a coordinated approach involving

tertiary care centers and the districts and conduct further planning for its implementation.

- Consider the specific needs and demographics of each district when implementing the community-based models and developing the role of the part-time Medical Coordinator. Recognize that the DCP model may vary from district to district.

Learning Needs of Family Physicians and Community Specialists

The needs assessment highlighted self-identified learning needs for physicians across the continuum of cancer care, their preferred methods for learning and factors which influence learning.

6. Begin immediately to develop and implement a program that addresses the identified priority learning topics across the continuum of cancer care:
   - Prevention for family physicians: environmental factors and counseling in specific situations.
   - Screening and diagnosis for family physicians: genetic/hereditary testing and screening for different types of cancer.
   - Treatment and Continuing Care:
     - For family physicians priorities included: symptom management, pain management and supportive/palliative care.
     - Skills for family physicians: administration of nerve blocks for pain and initiation and administration of intermittent medications .
     - For community specialists priorities included: chemotherapy, surgery and symptom management.
   - Communication between patients and physicians; especially compassionate delivery of the diagnosis and grief management skills.
7. Implement programs using the preferred learning methods identified in this report:
   - *Informal Methods:* checklists for continuing care and a help line to oncologists for family physicians; a database of oncologist resources for community specialists.
   - *Formal Methods:* combined lecture and interactive activities.
   - Incorporate into existing Dalhousie CME programs.
   - Offer CME interventions locally as much as possible.
8. Implement initiatives to develop a strong foundation for continuing education in cancer care:
   - Work with the tertiary care cancer programs to critically review, compile and disseminate the evidence for cancer screening protocols and care guidelines. (This may best be undertaken as a national initiative in collaboration with other cancer centers.)
   - Use an evidence-based approach to developing the continuing education plan. Research has demonstrated that educationally-sound and effective CME interventions tend to use interactive methods, are directly related to patient care (e.g., checklists for continuing care), and are multi-faceted as opposed to being a single intervention (e.g., a symposium followed by local community programs).
   - Use objective statistical data compiled by the *CCNS* Epidemiology and Surveillance Unit for cancer incidence and mortality rates by district health authority, to supplement the subjective data collected by this report to ensure priority areas are targeted.
   - Develop cancer care educational resources and inventories of CME programs and interventions; e.g., CME programs offered over the past 5 years in Nova Scotia, and continuing education programs offered by other provincial cancer care programs.
   - Collaborate with existing educational programs in communications skills to develop and provide programming in this area; e.g., the Dalhousie Faculty of Medicine Communication Skills Program, and Nova Scotia Professional Support Program.
9. Establish a Physicians Education Advisory Sub-Committee, reporting to the *CCNS* Education Advisory Committee, and ensuring representation of family physicians, community specialists, and oncologists (or use the existing Physicians Advisory Committee), to:
   a. Implement recommendations 6, 7 and 8, listed above.
   b. Develop a coordinated continuing education plan for programming.
   c. Make recommendations to the *CCNS* Education Advisory Committee regarding implementation of the plan.
   d. Oversee the long-term implementation, evaluation and improvement of the continuing education plan.

If you wish to receive the *Furthering Cancer Education in Nova Scotia: Physicians Needs Assessment, Final Report*, please contact:

Anne Murray
Education Coordinator
Cancer Care Nova Scotia
Telephone: (902) 473-3781
Fax: (902) 473-4631
Email: anne.murray@ccns.nshealth.ca

104-02381/

Furthering Cancer Education in Nova Scotia:

Physicians Needs Assessment

Final Report

November 2002

Cancer Care Nova Scotia

Foreword

One of the principal elements of the mandate given to *Cancer Care Nova Scotia* is the responsibility to "ensure that health facilities and health professionals remain current with emerging knowledge, guidelines and policies for the prevention and treatment of cancer." This is indeed mission critical to ensure that we have a quality cancer system in Nova Scotia.

The presence of a highly competent, informed and knowledgeable cadre of health professionals competent in the management of cancer patients and their disease as well as in cancer prevention, early detection, and palliative care, is at the core of a quality cancer system for Nova Scotia.

To determine the skills and competencies needed by health professionals, *Cancer Care Nova Scotia* undertook a series of three needs assessments and thirteen focus groups that resulted in the most comprehensive assessment of oncology education undertaken in Canada, and likely in all of North America. It was important to conduct this magnitude of assessment as there was no baseline understanding of what nurses, physicians, pharmacists and other health professionals already knew about cancer management. Additionally, the assessment looked at professionals' preferred modes of learning and maintaining currency in the field. To ensure the correct evidence-base for developing cancer education programming, *Cancer Care Nova Scotia* surveyed provincially 2403 nurses, 561 physicians and 839 pharmacists. The focus groups, conducted in all health districts across the province, took an in-depth look at the needs of physicians, nurses, and pharmacists as well as other health professionals. The resulting information is contained in three separate reports generated by discipline (physicians, nurses and pharmacists) and will be published in November 2002. The report from the focus groups will be available in December 2002. Together, they are the most powerful understanding of the needs of health professionals in cancer care that exists at this time.

This information will be the backbone for developing education programs that will be both multi-disciplinary and discipline-specific. They will become the core of an approved program for community cancer care. Better yet, they will ensure that Nova Scotia has the ability, through its committed health professionals to provide the best possible, evidence-based care for cancer patients.

Through education programming, based on the evidence from the needs assessments, we will ensure that health professionals have the skills and competencies they require to care for cancer patients now and into the future.

Andrew Padmos, BA, MD, FRCPC
Commissioner, *Cancer Care Nova Scotia*

DALHOUSIE
University

Continuing Medical Education
Clinical Research Centre
5849 University Avenue
Halifax, Nova Scotia
Canada B3H 4H7

Joan Sargeant BN MEd
Phone: (902) 494-1995
Fax: (902) 494-1479

Furthering Cancer Education in Nova Scotia

Physicians Needs Assessment

Final Report

November 2002

Presented by:

Joan Sargeant BN MEd
Director Program Development and Evaluation
Dalhousie Continuing Medical Education

Suzanne Ferrier BSc MSc
Research Associate
Dalhousie Continuing Medical Education

Elaine Loney BSN MSc
Qualitative Analyst

In collaboration with

Anne Murray BSc MAEd
Education Coordinator
Cancer Care Nova Scotia

ACKNOWLEDGEMENTS

Cancer Care Nova Scotia (CCNS) and Dalhousie Continuing Medical Education (CME) gratefully acknowledge the time and effort of the physicians who completed the questionnaires, participated in the interviews and assisted with the pilot testing.

In addition, we acknowledge the contributions of the **Physicians Advisory Group** (See Appendix A) who provided input into survey design and in the interpretation of the results:

Dr. Spencer Barclay
Dr. Dorothy Barnard
Dr. Jim Bentley
Dr. Michael Cussen
Dr. Mark Dorreen
Dr. Gerry Farrell
Dr. Michael Fleming
Dr. Paula Gallant
Dr. Jean Gray
Dr. Lynne Harrigan
Dr. Shelagh Leahey
Dr. Ron MacCormick
Dr. Shaun MacCormick
Dr. Liam Mulroy
Dr. Andrew Padmos
Ms. Marlene Sellon
Ms. Judy Simpson

We would like to acknowledge the important contributions to the needs assessment from the following employees at Dalhousie CME:

Jamie Davenport for assisting with questionnaire development.

Erin Fox for assisting with the administration of the survey.

Heather Hobson for assisting with questionnaire development and conducting the preliminary analysis of the family physician questionnaire.

Eileen MacDougall for overall support and creating the Access database used to manage the questionnaire data.

Finally, we would like to acknowledge Heidi Little of *CCNS* for her support in assisting with the administration of the survey.

TABLE OF CONTENTS

Acknowledgements....2

Table of contents....3

List of tables....4

List of appendices....6

Executive summary....7

Introduction....12

Methods....13
- Literature search....13
- Questionnaires: Development, administration and analysis....13
- Oncologist interviews: Development, subject selection and analysis....15
- Patients' perspectives....16

Results: Response rates and population demographics....17
- Questionnaire response....17
- Oncologist interview response....21

Results by section:
- Section 1: Current challenges in cancer care....22
- Section 2: Educational needs to improve provision of cancer care....33
- Section 3: Learning methods and clinical resources....42
- Section 4: Models for community cancer care in Nova Scotia....49

Dissemination to *CCNS* groups....53

Conclusions, by section....56

Recommendations....59

References....62

Appendices....63

LIST OF TABLES

Table 1: Response rate of family physicians and community specialists..... 17

Table 2: Descriptive information of respondents to questionnaire..... 18

Table 3: Frequency (percentage) of family physicians and community specialist practice settings..... 19

Table 4: Practice information for family physicians..... 19

Table 5: Practice information for community specialists..... 20

Table 6: Frequency of diagnosing specific types of cancer by family physicians and community specialists..... 20

Table 7: Percentage of family physicians who responded "yes", "no", or "unsure" for whether providing counseling is of value in cancer prevention for the following..... 22

Table 8: Factors that interfere with family physicians' ability to provide patients with lifestyle counseling..... 23

Table 9: Responses to suggestions for increasing screening rates for breast and cervical cancer..... 24

Table 10: Family physicians' responses to suggestions for increasing the use of digital rectal examination as a screening test for prostate cancer..... 25

Table 11: Family physicians' suggestions for how to prevent delays in cancer diagnoses..... 26

Table 12: Percentage of physicians with patients who reported difficulty navigating their way through the cancer care process..... 27

Table 13: Percentage of family physicians with patients who reported difficulty navigating their way through the cancer care process, for districts with and without tertiary care centres..... 28

Table 14: Barriers to improving the care of cancer patients..... 29

Table 15: Physicians' mean ratings on the usefulness of the community resources..... 30

Table 16: Physicians' rankings for CME programs in treatment and continuing care in order of preference based on weighted scores..... 33

Table 17: Specific CME topics identified by at least 4 family physicians..... 34

Table 18: Specific CME topics identified by at least 3 community specialists..... 35

Table 19: Physicians' present and needed knowledge and skill levels in communication with cancer patients 35

Table 20: Family physicians' present and needed knowledge and skill levels in cancer prevention 36

Table 21: Family physicians' present and needed knowledge and skill levels in cancer screening and early detection 37

Table 22: Family physicians' mean ratings on the usefulness of CME for the specific skills 38

Table 23: Family physicians' ranked expectations for how CME programs will impact upon their practice 39

Table 24: Physicians' preferences for how to learn about cancer care 43

Table 25: Physicians' preferred location for attending formal CME programs 45

Table 26: Breakdown of physicians' preferred location for CME programs by the size of the community where they practice 45

Table 27: Physicians' mean ratings on the usefulness of specific clinical resources 46

Table 28: Family physician's and community specialist's preferred roles in providing cancer care within their community 50

LIST OF APPENDICES

Appendix A. *CCNS* Physicians Advisory Committee members..... 63

Appendix B. District Cancer Program..... 64

Appendix C. Summary of literature search..... 65

Appendix D. Interview questions..... 69

Appendix E. *CCNS* Patient Navigation Qualitative Study executive summary..... 71

Appendix F. Specific topics identified for CME programs by community specialists..... 72

Appendix G. *CCNS* Education Advisory Committee Terms of Reference and membership... 75

EXECUTIVE SUMMARY

Cancer Care Nova Scotia (CCNS) has recently undertaken a number of collaborative initiatives involving patients and health care professionals, to identify and respond to issues in the provision of cancer care in Nova Scotia. In June 2000, *CCNS* initiated the Physicians Advisory Committee to begin to address the learning needs of Nova Scotia physicians with respect to cancer care. In addition to identifying a number of general concerns, it became clear that a thorough assessment would be beneficial. *CCNS* invited the Dalhousie University Office of Continuing Medical Education (CME), an office skilled in conducting physicians needs assessments, to partner in a comprehensive needs assessment of physicians' learning and support needs.

The **objectives** of the needs assessment were to address the following questions:

1. What are the current challenges faced by Nova Scotian family physicians and community specialist physicians (i.e., general internists, general surgeons, pediatricians and obstetricians/gynecologists working outside the Dalhousie academic medical center), with respect to the continuum of cancer care delivery; prevention, screening, diagnosis, treatment and continuing care/palliation?
2. What are the learning needs of Nova Scotian family practitioners and community specialists with respect to cancer care delivery (prevention, screening, diagnosis, treatment and continuing care/palliation)?
3. What are the preferred learning methods for family and community specialists to address these needs?
4. What is the preferred physician leadership model within the District Cancer Program?
5. What are the perceptions of oncologists and patients regarding family physicians and community specialists learning needs in cancer care?

Data collection **methods** included a literature search, family physician and community specialist questionnaires, interviews with oncologists at cancer centres at the Queen Elizabeth II Health Sciences Centre and Cape Breton Healthcare Complex, the *CCNS* Patient Navigation Qualitative Study, and interdisciplinary focus groups. (The latter will be reported separately in November 2002.)

Conclusions and recommendations related to study objectives are drawn from key results and are summarized below, in order of priority within each section. Please refer to the full report for complete conclusions and recommendations.

Conclusions

Section 1: Current challenges in cancer care

- Gaps and inefficiencies in communication and transfer of information among members of the cancer care team, especially among family physicians, community specialists, and oncologists, interfere with the provision of timely, effective and compassionate care.
- Over 50% of family physicians indicated that their patients had reported difficulty navigating their way through the cancer care process, supporting findings of the Patient Navigation Study.
- Several factors influence physicians' ability to provide optimal care. These include systemic issues; i.e., lack of time and reimbursement schedules; public and patient awareness and

education, especially regarding cancer prevention and screening; and lack of evidence in some aspects of care; e.g., screening for prostate cancer.
- Physicians are not aware of and/or under-utilize several community resources; e.g., Nova Scotia's Pink Rose Program, Canadian Cancer Society's Information Service.

Section 2: Educational needs
- Respondents identified specific learning needs across the continuum of cancer care (prevention, screening, diagnosis, treatment and continuing care/ palliation).
- Communication between patients and physicians is an important learning area; especially compassionate delivery of the diagnosis and grief management skills.
- Family physicians and patients both indicated a need for family physicians to play a larger role in their patients' cancer care.

Section 3: Learning methods and clinical resources
- Physicians indicated that "informal" learning methods were more highly preferred as compared to formal CME programs. Family physicians rated "checklists for continuing care" most highly, followed by "a help line to oncologists". Community specialists rated "a database of oncologist resources" most highly.
- The preferred formal learning method was "combined lecture and interactive activities".
- The preferred types of CME programs were those which incorporated cancer care into existing Dalhousie CME programs and 1-2 day symposia.
- Family physicians in 5 of the 7 District Health Authorities outside the two tertiary care centers indicated they would prefer to attend CME programs locally rather than in a central location.
- The most valuable clinical resources are local palliative care programs (where available) and telephone consultations with oncologists. Web sites were used by less than 60% of respondents.
- Oncologists are very willing to assist with CME interventions for community physicians, including development of appropriate checklists for continuing care, and stressed the value of interactive, patient-related teaching methods.

Section 4: District Cancer Program (DCP)
- Most oncologists interviewed were unaware of the proposed District Cancer Program.
- Family physicians' preferred roles in providing cancer care in their communities included screening and early detection, prevention, pain and symptom management, and supportive care. However, these were influenced by factors such as year of graduation, size of community, number of patients with cancer seen annually. Oncologists indicated that their role in the DCP could be to educate and provide support to the Medical Coordinator.
- Slightly over half of respondents believed a part-time Medical Coordinator could be of assistance. Suggested roles for this position: provide advice concerning side effects of therapy and chemotherapy administration; teach about therapies and side effect management; coordinate chemotherapy outside the two cancer centers, and liase between the cancer centers and community physicians.

Recommendations

Current challenges in cancer care

1. Respond to identified gaps and inefficiencies in communication and information-sharing among members of the health care team, particularly family physicians, community specialists and oncologists, by:

a. Establishing a collaborative working group comprised of representative family physicians, community specialists, oncologists, and patients. Tasks should include:
   - Identify specific problem areas as identified in this and other reports.
   - Clarify specific issues and perspectives within each area.
   - Recommend strategies for improvement to appropriate bodies.
   - Coordinate and oversee their implementation.
   - Monitor and evaluate progress using a quality improvement model.

b. Developing a comprehensive approach to respond to patients' difficulties navigating the cancer care process, building upon initiatives undertaken to date. For example:
   - Evaluate the impact of the current Patient Navigation Qualitative Study and respond to findings of this evaluation.
   - Through collaborative efforts with patients, physicians and other health care providers, investigate other approaches to this problem.

c. Exploring how family physicians can play a larger role in the care of their cancer patients and the steps required to implement this, utilizing a collaborative working group of family physicians, community specialists, oncologists and patients.

2. Address systemic factors which interfere with physicians' ability to provide comprehensive cancer care; e.g., lack of reimbursement codes which reflect the time required for patient counseling throughout the continuum of cancer care. This should be undertaken in collaboration with appropriate bodies; e.g., Medical Society of Nova Scotia, Department of Health.

3. Increase awareness and use of community resources using a comprehensive approach. Suggested initiatives include:
   - Receive specific feedback from physicians regarding the most useful resources and the most effective way to provide information about them.
   - Learn how other provincial cancer care programs have addressed this problem.

4. Undertake initiatives to improve patient and public education addressing the importance of cancer prevention, accepting responsibility for own health, and screening for breast, cervical and prostate cancer. Suggested initiatives include:
   - Form a working group of patients, physicians and other health professionals to serve as an advisory committee, to determine areas of greatest need and advise regarding material development, dissemination, literacy levels, etc.
   - Compile a resource of public and patient educational approaches used in other provincial cancer care programs.

5. Raise awareness about the District Cancer Program through a coordinated approach involving tertiary care centers and the districts and conduct further planning for its implementation.
   - Consider the specific needs and demographics of each district when implementing the community-based models and developing the role of the part-time Medical Coordinator. Recognize that the DCP model may vary from district to district.

Learning needs of family physicians and community specialists
The needs assessment highlighted self-identified learning needs for physicians across the continuum of cancer care, their preferred methods for learning and factors which influence learning.

6. Begin immediately to develop and implement a program that addresses the identified priority learning topics across the continuum of cancer care:
   - Prevention for family physicians: environmental factors and counseling in specific situations.
   - Screening and diagnosis for family physicians: genetic/hereditary testing and screening for different types of cancer.
   - Treatment and continuing care:
     - For family physicians priorities included: symptom management, pain management and supportive/palliative care.
     - Skills for family physicians: 'administration of nerve blocks for pain' and 'initiation and administration of intermittent medications'.
     - For community specialists priorities included: chemotherapy, surgery and symptom management.
   - Communication between patients and physicians; especially compassionate delivery of the diagnosis and grief management skills.

7. Implement programs using the preferred learning methods identified in this report:
   - Informal methods: checklists for continuing care and a help line to oncologists for family physicians; a database of oncologist resources for community specialists.
   - Formal methods: combined lecture and interactive activities.
   - Incorporate into existing Dalhousie CME programs.
   - Offer CME interventions locally as much as possible.

8. Implement initiatives to develop a strong foundation for continuing education in cancer care:
   - Work with the tertiary care cancer programs to critically review, compile and disseminate the evidence for cancer screening protocols and care guidelines. (This may best be undertaken as a national initiative in collaboration with other cancer centers.)
   - Use an evidence-based approach to developing the continuing education plan. Research has demonstrated that educationally-sound and effective CME interventions tend to use interactive methods, are directly related to patient care (e.g., checklists for continuing care), and are multi-faceted as opposed to being a single intervention (e.g., a symposium followed by local community programs).
   - Use objective statistical data compiled by the *CCNS* Epidemiology and Surveillance Unit for cancer incidence and mortality rates by district health authority, to supplement the subjective data collected by this report to ensure priority areas are targeted.
   - Develop cancer care educational resources and inventories of CME programs and interventions; e.g., CME programs offered over the past 5 years in Nova Scotia, and continuing education programs offered by other provincial cancer care programs.
   - Collaborate with existing educational programs in communications skills to develop and provide programming in this area; e.g., the Dalhousie Faculty of Medicine Communication Skills Program, and Nova Scotia Professional Support Program.

9. Establish a Physicians Education Advisory Sub-Committee, reporting to the *CCNS* Education Advisory Committee, and ensuring representation of family physicians, community specialists, and oncologists (or use the existing Physicians Advisory Committee), to:
   a. Implement recommendations 6, 7 and 8, listed above.
   b. Develop a coordinated continuing education plan for programming.

c. Make recommendations to the *CCNS* Education Advisory Committee regarding implementation of the plan.
d. Oversee the long-term implementation, evaluation and improvement of the continuing education plan.

INTRODUCTION

Cancer Care Nova Scotia (*CCNS*) has recently undertaken a number of collaborative initiatives involving patients and health care professionals to identify and respond to issues in the provision of cancer care in Nova Scotia. In June 2000, *CCNS* initiated the Physicians Advisory Committee to begin to address the learning and clinical needs of Nova Scotia physicians with respect to cancer care. This Committee was compiled of representative family physicians, community specialists and oncologists from the two cancer care centres (see Appendix A). A number of general concerns were identified during the initial meeting, and it became clear that a more thorough assessment would be beneficial to the planning process. As a result, *CCNS* invited the Dalhousie University Office of Continuing Medical Education (CME), an office skilled in conducting physicians needs assessments, to partner in a comprehensive needs assessment of physician learning and support needs.

Objectives of the Nova Scotia Physicians Needs Assessment

The objectives of the needs assessment were to address the following questions:

1. What are the current challenges faced by Nova Scotia (NS) family physicians and community specialist physicians (i.e., general internists, general surgeons, pediatricians and obstetricians/gynecologists working outside the Dalhousie academic medical center), with respect to the continuum of cancer care delivery; prevention, screening, diagnosis, treatment and continuing care/palliation?

2. What are the learning needs of NS family practitioners and community specialists with respect to cancer care delivery (prevention, screening, diagnosis, treatment and continuing care/palliation)?

3. What are the preferred learning methods for family and community specialists to address these needs?

4. What is the preferred physician leadership model within the District Cancer Program (DCP; see attached public information sheet in Appendix B)?

5. What are the perceptions of oncologists and patients regarding family physician and community specialists learning needs in cancer care?

METHODS

The following methods were used to collect data and are described in more detail below:

1. Literature search
2. Questionnaires
    a. A questionnaire mailed to family physicians in Nova Scotia.
    b. A questionnaire mailed to community specialists in Nova Scotia.
3. Interviews with oncologists from the Cancer Centres at the Queen Elizabeth II Health Sciences Centre and the Cape Breton Healthcare Complex.
4. Patient Navigation Qualitative Study
5. Interdisciplinary focus groups held in each district and tertiary care center (these are not included in this report and will be reported separately in September, 2002).

1. Literature search

We searched PubMed, Medline, and PsychLit databases and Social Science Abstracts, 1980-2001 to find reports on needs assessments in cancer care. We also reviewed references within the publications found by the literature search. Only 10 papers were found which addressed this topic, 6 of which were conducted prior to 1995. None of these addressed the full spectrum of cancer care; i.e. prevention, screening, diagnosis, treatment, continuing care and palliative care. Studies addressed the following topics: cancer screening and detection (5), palliative care (5), and surgical oncology networking (1). Conclusions of the literature search are listed below. Please refer to Appendix C for a summary of the literature search.

Conclusions from the literature review:

- A small number of studies of physician practices, attitudes and learning needs related to cancer screening, preventive counseling and palliative care were reported. We considered the methods and results of these studies in the development of our tools.
- Needs assessments related to physician screening and detection practices have not been conducted since 1993.
- Only a couple needs assessments have examined the current practices and educational needs of Canadian physicians.
- There have been no comprehensive needs assessments reported that have examined current practices and learning needs of physicians with regards to the whole spectrum of cancer care (i.e., screening, prevention, diagnosis, treatment, follow-up, and palliative care).
- In light of this, there is an opportunity for this *Cancer Care Nova Scotia* and Dalhousie Continuing Medical Education physicians' needs assessment to make a significant contribution to the literature as it addresses the whole spectrum of cancer care. It will provide up-to-date information about physicians' current practices and learning needs, and it will specifically address the needs and challenges of Nova Scotia physicians.

2. Questionnaires: Development, administration and analysis

Questionnaire development

The family physician and community specialist questionnaires were developed by Dalhousie Continuing Medical Education and *Cancer Care Nova Scotia*. Resources used to develop the questions included: (1) results of the Patient Navigation Qualitative Study recently conducted by *Cancer Care Nova Scotia*, (2) literature review, and (3) topics and questions arising from CME programs. The *CCNS* Physicians Advisory Group guided the physicians needs assessment process. They thoroughly reviewed the initial questions and suggested numerous changes; ensuring questions were appropriate for family physicians and community specialists in busy practices.

Five family physicians participated in the pilot review of the family physician questionnaire to test for length, clarity and relevance. Eight specialist physicians, 2 from each specialty included in this needs assessment (pediatricians, obstetricians/gynecologists, surgeons and internists) reviewed the community specialist questionnaire. Each provided feedback using a one-page review questionnaire. Minor changes were made to the questionnaires to reflect their feedback. They expressed concern about the length of the questionnaires; however, they believed the content was appropriate.

The family physician questionnaire consisted of 26 close-ended questions and took approximately 20 minutes to complete. It covered the following topics:

1. Current challenges in cancer care
    a. Prevention
    b. Screening
    c. Diagnosis
    d. Barriers to cancer care
2. Educational needs and resources to improve provision of cancer care
3. The District Cancer Program model for community cancer care in Nova Scotia
4. Demographics

The community specialist questionnaire consisted of 20 close-ended questions and took approximately 15 minutes to complete. It covered the following topics:

1. Barriers to cancer care
2. Educational needs and resources required to improve provision of cancer care
3. The District Cancer Program model for community cancer care in Nova Scotia
4. Demographics

Both questionnaires also requested qualitative responses; i.e., comments and specific details, for several questions. The complete questionnaires are available upon request from *CCNS* (please contact Anne Murray at (902) 473-3485 or email: anne.murray@ccns.nshealth.ca).

Questionnaire administration

In May 2001, the family physician questionnaire was mailed to 415 (approximately 50%) of the family physicians in Nova Scotia. To encourage returns, 3 respondents were randomly selected to receive a $150 gift certificate redeemable at either Chapters bookstore or at a Nova Scotian restaurant of his or her choice. Non-responders received several reminders by mail and fax: 2 weeks after the initial mailout they received a postcard reminder, 4 weeks after they received a second letter and questionnaire, then 2 weeks following this they received a one-page fax reminder that gave non-responders an opportunity to explain why they had not completed the questionnaire. This reminder system is based on an accepted approach to mail and telephone surveys (Dillman, 1978).

In September 2001, the community specialist questionnaire was mailed to 146 community specialists in Nova Scotia; that is, all the community specialists in the province except those on staff at the Dalhousie academic health centre. To encourage returns, one respondent was randomly selected to receive a $150 gift certificate redeemable at either Chapters bookstore or at a Nova Scotian restaurant of his or her choice. The non-responders received several reminders using the same procedure as for family physicians.

Questionnaire analysis
Questionnaire data was entered into an Access database and exported to SPSS. Frequency distributions and descriptive statistics (means and standard deviations) were computed for questions as deemed appropriate. Due to the small number of responses from community specialists, we did not compare their responses with those from family physicians.

For the two questions with ranked responses in the family physician questionnaire (questions 9 and 12), weighted scores were calculated to establish overall rankings. To do this, each response was reverse-coded (i.e., the top ranked response was recoded to a 10 when there were 10 items and 5 when there were 5 items. The second ranked response was a 9 or 4, depending on the question, etc.), then the "weighted" scores were summed for each topic and listed according to their sums from highest to lowest; the highest score indicating the top ranked response.

Chi-square analyses were calculated to determine if there were any differences between physicians' responses and their graduation year, number of cancer patients they see annually and the district health authority in which they practice. Measures of association (e.g., Gamma correlations for ordinal data, Pearson correlations for interval data) were conducted to determine if there was any relationship between physicians' responses with their year of graduation and community size. For community specialist responses, statistical comparisons across specialty type were not calculated due to the low and unequal sample sizes.

Due to unequal sample sizes across graduation years, the 2 earliest and the 2 most recent categories were combined for analysis purposes, resulting in 4 categories instead of the original 6: <1969, 1970-1979, 1980-1989, and >1990. Additionally, due to unequal sample sizes across the nine district health authorities, the seven districts without a tertiary care centre were combined for some analyses, resulting in 3 district levels: (1) Cape Breton District Health Authority, (2) Capital Health, and (3) health districts without a tertiary care centre (South Shore, Southwest Nova, Annapolis Valley, Colchester East Hants, Cumberland, Pictou County and Guysborough Antigonish Strait Health Authorities).

Inferential statistics (e.g., paired sample t-tests) were conducted to determine any differences between respondents' self ratings of their present and needed education levels in cancer prevention, screening and early detection, and communication with cancer patients.

Only significant findings at the $p<.05$ level are reported in the results.

3. Oncologist interviews: Development, subject selection and analysis

Question development
The interview questions (see Appendix D) were based upon topics and preliminary results of the family physicians needs assessment questionnaire and suggestions from *Cancer Care Nova Scotia's* Physicians Advisory group.

Two oncologists, who were not participating in the study, reviewed the interview questions for content validity and length. The Dalhousie CME Research Associate conducted a pilot interview with a radiation oncology volunteer who agreed to test the interview for clarity and length.

Subject selection and recruitment
Two specialists of each of the four groups of tertiary care physicians who specialize in cancer care (medical oncologists, radiation oncologists, hematologists and surgeons) at the Queen Elizabeth II Health Sciences Centre were randomly selected. At the Cape Breton Regional Healthcare Complex, the two medical oncologists and one radiation oncologist were invited to participate and one surgical specialist was randomly selected. Selected subjects were faxed or mailed an invitation letter requesting their participation in a 30 minute interview. Several attempts by fax and phone were made to contact non-responders. When a selected oncologist declined to participate, the next randomly selected person was sent an invitation letter.

Interviews were 30 minutes in length and were conducted by the Dalhousie CME research associate. Participants at the QEII were interviewed in their office at a time convenient for them. The participant from Cape Breton was interviewed by telephone.

Interview analysis
Analysis was performed by a researcher skilled in qualitative analysis and was based on standard approaches to qualitative analysis (Patton, 1990; Miles and Huberman, 1994; Strauss & Corbin, 1998). All interviews were tape recorded and transcribed. Verified transcripts were imported into QSR NUD*IST 4^4 for data management. Data were systematically coded; that is, broken down into meaningful units and assigned to categories in 'index trees' structured according to interview guide. A constant comparative approach (e.g., within and between categories of data) was used in the interpretation, aided by matrices constructed to facilitate comparisons among specialist groups. Themes were identified. Consideration was given to negative cases. Findings were further synthesized in the report writing process. For a complete copy of this report, please contact Anne Murray at (902) 473-3485 or email: anne.murray@ccns.nshealth.ca.

4. Patients' perspectives
Patient perspectives were collected by focus groups and reported by *CCNS* in their *Patient Navigation Qualitative Study*, completed in August 2000. Relevant findings are included in this report. Refer to Appendix E for the executive summary of this study.

RESULTS: RESPONSE RATES AND POPULATION DEMOGRAPHICS

Questionnaire Response Rate

Table 1 shows the response rate to the questionnaire mailed to 415 family physicians and 146 community specialists. Overall, the response rate was 40% for family physicians and 40% for community specialists, after excluding the 40 family physicians and 19 specialists who were not in the target population (i.e., wrong address, retired or did not see cancer patients).

The community specialist's group was comprised of 12 internists (23.5%), 8 obstetrics/gynecologists (15.7%), 5 pediatricians (9.8%) and 24 surgeons (47.1%).

Table 1: Response rate of family physicians and community specialists.

	Family Physicians	Community Specialist Physicians
Mailed	415	146
Number not in target group (e.g., retired, moved, do not see cancer patients)	40	19
Final denominator	375	127
Number completed	150	51
Response rate (return rate)	40%	40%

Demographic information

Table 2 shows descriptive information of respondents. Statistical analyses revealed a significant relationship between family physicians' gender and graduation year (r_{gamma}=.32, p=.01) and a difference of gender by community size ($X^2(2)=9.8$, $p<.01$). Although there were an equal number of male and female respondents, the older graduates tended to be male and the younger graduates were female. Furthermore, more female respondents lived in the larger communities (51% of females vs. 29% of males) whereas more male respondents lived in rural areas (27.5% of males vs. 10% of females).

Table 2: Descriptive information of respondents to questionnaire.

	FPs N (%)	Specialists N (%)
Gender		
Male	70 (48.6%)	38 (77.6%)
Female	74 (51.4%)	11 (22.4%)
Year of graduation with basic MD degree		
1959 or earlier	6 (4.1%)	1 (2.0%)
1960 – 1969	11 (7.5%)	4 (8.2%)
1970 – 1979	46 (31.3%)	6 (12.2%)
1980 – 1989	48 (32.7%)	18 (36.7%)
1990 – 1995	26 (17.7%)	11 (22.4%)
1996 – 2001	10 (6.8%)	9 (18.4%)
Population of community in which respondents practice		
>50,000	56 (40%)	15 (30.6%)
5,000 – 50,000	57 (40.7%)	32 (65.3%)
<5,000	27 (19.3%)	2 (4.1%)
District Health Authority		
South Shore District Health Authority (District 1)	12 (8.4%)	7 (15.6%)
Southwest Nova District Health Authority (District 2)	11 (7.7%)	6 (13.3%)
Annapolis Valley Health (District 3)	10 (7.0%)	7 (15.6%)
Colchester East Hants Health Authority (District 4)	8 (5.6%)	1 (2.2%)
Cumberland Health Authority (District 5)	6 (4.2%)	1 (2.2%)
Pictou County Health Authority (District 6)	3 (2.1%)	2 (4.4%)
Guysborough Antigonish Strait Health Authority (District 7)	5 (3.5%)	8 (17.8%)
Cape Breton District Health Authority (District 8)	18 (12.6%)	7 (15.6%)
Capital Health (District 9)	67 (46.9%)	6 (13.3%)

Practice information of the respondents is reported in Tables 3-6. Information is reported about where the respondents practice (Table 3); the number of newly diagnosed cancer patients seen annually by family physicians (Table 4) and community specialists (Table 5), and the frequency that various types of cancer diagnoses are made (Table 6).

Table 3: Frequency (percentage) of family physician and community specialist practice settings.

	FPs N (%)	Specialists N (%)
Setting of practice		
Private office	131 (89.7%)	42 (82.4%)
Clinic (s)	50 (34.2%)	18 (35.3%)
Hospital emergency department(s)	33 (22.6%)	26 (51%)
Tertiary care hospital (s)	33 (22.6%)	1 (2.0%)
Small community hospital	29 (19.9%)	18 (35.3%)
Regional or district hospital	26 (17.8%)	38 (74.5%)
Hospital outpatient department(s)	15 (10.3%)	20 (39.2%)

Table 4: Practice information for family physicians.

Average number (SD) of patients seen per week	130.7 (62.4)
Number of newly diagnosed cancer patients seen annually by family physicians	N (%)
0	2 (1.4%)
1-5	46 (32.9%)
6-10	48 (34.3%)
11-15	25 (17.9%)
16-20	9 (6.4%)
>20	10 (7.1%)
Type of practice	N (%)
Family practice	122 (89.7%)
Group	87 (65.9%)
Solo	45 (34.1%)

As shown in Table 4, 69% of family physicians see fewer than 10 newly diagnosed cancer patients per year, compared to 36% of community specialists (Table 5). Correlation analysis revealed a significant relationship between the number of patients seen and family physicians' graduation year (r_{gamma}=-.33, p<.001) and gender (r_{gamma}=-.53, p<.001). Older graduates and/or male physicians had a tendency to see more patients with cancer than more recent graduates and/or females.

Table 5: Practice information for community specialists.

Number of newly diagnosed cancer patients seen annually by community specialist physicians	N (%)
0	2 (4.3%)
1-10	15 (31.9%)
11-20	6 (12.8%)
21-30	4 (8.5%)
31-40	5 (10.6%)
41-50	6 (12.8%)
51-60	1 (2.1%)
61-70	1 (2.1%)
>70	7 (14.9%)

As shown in Table 6, the types of cancer diagnosed most frequently were breast, skin and colon cancer. Family physicians diagnosed breast cancer most frequently and community specialists diagnosed colon cancer most frequently. There was a significant relationship between frequency of lung cancer and graduation year, suggesting that older graduates reported diagnosing lung cancer more frequently than more recent graduates (r_{gamma}=-.30, p=.001).

Table 6: Frequency of diagnosing specific types of cancer by family physicians and community specialists (1=rarely and 5=frequently).

	Family Physicians Mean (SD)	Community Specialists Mean (SD)
Breast	3.6 (1.0)	2.9 (1.7)
Skin	3.4 (1.2)	2.6 (1.6)
Colon	3.2 (1.2)	3.1 (1.7)
Prostate	3.1 (1.2)	2.0 (1.4)
Lung	3.0 (1.2)	2.3 (1.5)
Cervical	2.6 (1.3)	1.7 (1.1)
Leukemia/Lymphoma	1.9 (1.0)	2.5 (1.4)

Oncologist Interview Responses

A total of 11 cancer care specialists were recruited and interviewed: 5 radiation oncologists, 2 medical oncologists, 2 hematologists, and 1 surgical oncologist. Ten participants practiced at the QEII – Nova Scotia Cancer Centre and one practiced in Cape Breton. There were 10 face-to-face interviews and 1 telephone interview.

Three extra radiation oncologists were included for the following reasons:

1. One of the originally selected radiation oncologists had moved. Upon notification, an invitation letter was immediately faxed to the next radiation oncologist on the randomly generated list; however, the Nova Scotia Cancer Centre also passed on the original invitation letter to another oncologist without notifying Dalhousie CME. Both oncologists agreed to participate.
2. One oncologist initially declined, but then wished to participate after another had been invited.
3. Inclusion of the pilot test interview.

Six other oncologists declined being interviewed or did not respond to the invitations to participate. Non-responders were faxed two invitation letters and received several telephone messages.

RESULTS BY SECTION

We will present results of the questionnaires and interviews under the following sections:
Section 1. Current challenges in cancer care
Section 2. Educational needs to improve provision of cancer care
Section 3. Learning methods and clinical resources
Section 4. District Cancer Program

SECTION 1. Current challenges in cancer care

This section addressed four areas that present challenges in the provision of cancer care:

- prevention,
- screening,
- diagnosis, and
- barriers to providing care, including the availability and usefulness of community resources.

1.1 Prevention

Family physicians were asked their perception of the value in providing patient counseling in cancer prevention. As shown in Table 7 physicians were very much in favor of counseling. At least 88% of physicians said "yes" for each area of prevention. The types of counseling rated as most valuable were smoking cessation, skin cancer prevention, and alcohol or drug abuse. In the comments section, three physicians questioned the benefits of breast self-examinations.

Table 7: Percentage of family physicians who responded "yes", "no", or "unsure" for whether providing counseling is of value in cancer prevention for the following:

	Yes		No		Unsure		Total
	N	%	n	%	N	%	n
Smoking cessation	146	98.7	1	0.7	1	0.7	148
Skin cancer prevention	143	96.0	2	1.3	4	2.7	149
Alcohol or drug abuse	138	93.2	4	2.7	6	4.1	148
Diet improvement	134	91.2	4	2.7	9	6.1	147
Breast self-examination	132	88.6	4	2.7	13	8.7	149
Increasing physical activity	131	88.5	6	4.1	11	7.4	148

Physicians were asked to indicate the factors that interfere with their ability to provide patients with lifestyle counseling. As shown in Table 8, lack of time was the biggest barrier to providing counseling. The majority of family physicians also identified reimbursement schedule and lack of educational materials for patients as factors that interfere with their ability to counsel.

Table 8: Factors that interfere with family physicians' ability to provide patients with lifestyle counseling.

	Yes		No		Unsure		Total
	N	%	n	%	n	%	n
Lack of time	113	78.5	30	20.8	1	0.7	144
Reimbursement schedule	86	58.9	54	37.0	6	4.1	146
Lack of educational materials for patients	78	54.6	54	37.8	11	7.7	143
Patients are unreceptive	38	26.8	91	64.1	13	9.2	142
Counselling is not effective	14	9.8	104	72.7	25	17.5	143
Not confident in my ability to provide counselling	9	6.3	130	90.9	4	2.8	143
Other	6	66.7	3	33.3	--	--	9

Both reimbursement schedule and confidence in counseling ability were significantly correlated with community size (r_{gamma}=.30, p<.05 and r_{gamma}=.56, p<.05, respectively), indicating that family physicians in larger communities tended to rate these as greater barriers than those in smaller communities. Family physicians' confidence ratings were also correlated with the number of newly diagnosed cancer patients seen annually (r_{gamma}=.58, p<.05). The more cancer patients seen in a practice, the more confident they appeared to be in their ability to counsel them.

Family physicians wrote several comments about the importance of preventive counseling and the barriers that interfere with their ability to counsel their patients. The majority simply stressed the importance of these preventive measures and how time, systemic factors, and patients' receptiveness can make it difficult to do these things adequately. A few physicians also reported that patients' socioeconomic status can be a factor that interferes with lifestyle counseling.

1.2 Screening

Breast and cervical cancer

Physicians were informed that screening rates for asymptomatic women in Nova Scotia for breast and cervical cancer are low for a variety of reasons. (For example, the 1999 Statistical Report of the Nova Scotia Gynaecological Cancer Screening Programme indicated that only 40% of the female population were being adequately screened.) They were provided with a list of suggestions and asked to indicate all that apply for reaching more women who aren't regularly screened for breast and cervical cancer. As shown in Table 9, the majority of family physicians thought the following were the best ways to improve screening:

- provide more public education to women who are reluctant to have these procedures conducted (79.3%)
- greater access to the Nova Scotia Breast Screening Program and Well Woman Clinics (76.6%)

In the community specialist group, only obstetricians/gynecologists were asked this question. As shown in Table 9, their top two suggestions were the same; however, in contrast to family physicians, the majority also suggested more skills practice in breast and cervical examinations.

Table 9: Responses to suggestions for increasing screening rates for breast and cervical cancer.

	Family Physicians		Obstetricians/ Gynecologists	
	Frequency (n)	Percent (N=145) (%)	Frequency (n)	Percent (N=8) (%)
More public education addressed to women who are reluctant to have these procedures conducted	115	79.3	8	100%
Greater access to the Nova Scotia Breast Screening Program and Well Woman Clinics	98	76.6	5	62.5%
More trained female nurses to perform Pap tests when female physicians are not available	71	49.0	4	50%
More patient education materials for physicians' offices	61	42.1	2	25%
Increased education for health professionals about screening guidelines	50	34.5	3	37.5%
More skills practice in breast and cervical examinations	48	33.1	5	62.5%
Other	9	6.0	2	25%

Suggestions for increasing the number of nurses trained to do Pap tests was significantly correlated with the number of cancer patients seen annually (r_{gamma} = .38, p<.005) and community size (r_{gamma} = -.30, p<.05). The more patients with cancer seen, the less positive family physicians were about this suggestion. Also, family physicians in rural areas were more likely to suggest this solution than those in larger communities.

This question generated numerous written comments by family physicians. Overall, physicians were very positive about Well Woman Clinics but many expressed concerns that there are not enough of them and they can be difficult for women to access (n=18). They claimed that there are long delays, an inefficient booking system and clinics often take place during times that many women can not attend (e.g., during business hours). Also, some family physicians (n=5) and community specialists (n=2) indicated that there should be better reimbursement from MSI for these screening procedures. Others indicated that there is a gender bias about who should perform the screening (n=9). Some felt that women patients are reluctant to have male physicians perform these tests, yet others felt men should be encouraged to initiate screening in their practices.

Some physicians (n=10) suggested using the media (e.g., television, radio and newspaper) for advertising campaigns to increase public education about screening and to inform women about

upcoming screening programs. It was also emphasized that the information must be simple and at an appropriate literacy level.

Prostate cancer

Similarly, family physicians were also asked to suggest ways to increase the use of digital rectal examination with men as a screening test for prostate cancer. Family physicians were provided with a list of four suggestions and asked to indicate which ones would apply. Table 10 shows their responses. Again, family physicians' most frequent suggestion was to increase the public education addressed to men who are reluctant to have this procedure performed.

This question generated comments regarding the use of digital rectal examinations. Several respondents (n=10) questioned the evidences supporting the appropriateness and usefulness of this exam. A few respondents (n=3) also commented on the gender issues that exist indicating that men are reluctant to have DREs done by female physicians and suggested that male nurses could do this.

Table 10: Family physicians' responses to suggestions for increasing the use of digital rectal examination as a screening test for prostate cancer.

	Frequency (n)	Percent (N=143) (%)
More public education addressed to men who may be reluctant to have this procedure performed	126	88.1
More patient education materials for physicians' offices	73	51.0
Increased education for health professionals about cancer screening protocols	67	46.9
More practical experience in digital rectal examinations in medical school	57	39.9
Other	16	11.1

Family physicians and community specialists suggested several ways to increase and improve patient and public education about cancer prevention and screening. These included:

- Advertise on radio and newspapers (n=4). Public education via pamphlets is useless unless people are already inquisitive. TV is the way to get people interested, particularly when using a profile person, e.g., one of the Rankin sisters (who has a sister with breast cancer).
- Provide resources for spouses and children, i.e., books and videos.
- Targeting children is much more effective than trying to get adults to stop smoking or lose weight.
- Information needs to be simple and of an appropriate literacy level.
- Relatives caring for the cancer patient at home should also be educated and made part of the team.
- Empower patients to actually become active in their own health maintenance.

1.3 Delays in diagnosis

Family physicians were informed that, in recent focus groups conducted by *Cancer Care Nova Scotia*, patients identified occasional delays in the diagnosis of their cancer. Physicians were

asked to indicate which of five suggestions would prevent these delays from happening. As shown in Table 11, just over half of respondents reported that having the lab call physicians when tests are abnormal and scheduling follow-up appointments with patients when tests are ordered can help prevent delays. However, there did not appear to be strong support for any of these options.

Table 11: Family physicians' suggestions for how to prevent delays in cancer diagnoses.

	Frequency (n)	**Percent (N=150) (%)**
Have the lab call physicians' offices when tests are abnormal	82	54.7
Schedule a follow-up appointment with the patient when the tests are ordered	76	50.7
Use a chart-flagging system as a reminder for scheduling screening procedures	70	46.7
Use of an office reminder system for follow-up of diagnostic tests and reports	68	45.3
Have the lab send patients a letter instructing them to check with their doctor about their lab report	52	34.7
Other	21	14.0

Correlation analysis revealed a significant negative relationship between physicians' responses to scheduling a follow-up appointment with the patient when tests are ordered and graduation year (r_{gamma}=-.28, p<.05), indicating that recent graduates tended to suggest this method for preventing delays more than older graduates.

As shown in Table 11, respondents provided several "other" suggestions for preventing delays in diagnosis (n=21). These were grouped into the following themes:

- computerized appointment and reminder systems for patients (n=7);
- "fast-track" system for highly suspicious cases (n=7);
- improving the availability and funding of diagnostic testing (n=5);
- patient to call back after test is done (n=3).

Additionally, this question generated numerous written comments which were grouped into 4 main themes:

- Patients responsibility for health (n=9): patients should follow up on tests, call back, book appointments, stop missing appointments, and follow instructions.
- Systemic barriers (n=8): delays for tests and specialist appointments; inadequate access to MD's; physicians are not reimbursed by MSI for screening procedures; inadequate resources.
- Time barriers (n=7): time it takes for preventative care; not enough time for follow up appointments; time it takes to do call backs and chart flagging.
- Screening/investigation barriers (n=5): slow response time from specialists; access to certain tests/procedures; wait for specialist appointments.

1.4 Barriers to care

Patient Navigation

Physicians were informed that patients frequently reported that it was difficult to maneuver or navigate their way through the cancer care process (this patient data was reported in the *CCNS* Patient Navigation Qualitative Study, August, 2000). Physicians were asked if any of their patients had mentioned this concern to them. As shown in Table 12, 53% of family physicians and 42% of specialists reported that their patients had reported difficulty navigating through the cancer process.

Table 12: Percentage of physicians with patients who reported difficulty navigating their way through the cancer care process.

	Family Physicians		Community specialists	
	Frequency	**Percentage**	**Frequency**	**Percentage**
No	69	47.3%	29	56.9%
Yes, sometimes	57	39.0%	19	37.3%
Yes, frequently	20	13.7%	2	3.9%
Total Yes	77	52.7%	21	42%

Those who said "yes" were asked to explain the problems that their patients had encountered. Their responses were grouped into the following themes:

- Specialist delays (FP=14, Spec=3, i.e., long wait for specialists appointment).
- Diagnostic/investigation/treatment delays (FP=10, Spec=4, i.e., delays in surgical treatment, delays getting test reports back).
- Lack of communication (FP=7, Spec=2, i.e., between specialist and GP, slow transfer of information to GPs, unclear instructions for GPs).
- Patients concerns with cancer care process (FP=7, Spec=3, i.e., patients feel lost in the struggle, confused about who is providing their care and where, and whom to see for follow up; lack of coordinated visits necessitating multiple trips).
- Positive comments about the cancer care process (FP=5, Spec=1, i.e., "generally they are well-guided by their primary caregivers, local and central oncology people").
- Cancer program delays (FP=3, Spec=1).
- Access (FP=2, Spec=2, i.e., difficulty accessing support systems/tests from outer areas).
- Systemic delays (FP=2, i.e.: lack of manpower, overload of cases).

Issues raised by patients and their families in the Patient Navigation Qualitative Study included:
(1) Wait times to receive a diagnosis were unacceptable.
(2) There is a significant communication gap between specialists and family physicians after the initial diagnosis. Typically, family physicians lose contact with their patients once they have been referred to a specialist and are unaware of the patients' treatment regime and progress.
(3) Family physician's role with treatment needs to be enhanced to improve cancer care.
(4) Some participants noted that there is a financial burden associated with cancer. This is due to a loss of income when the patient can no longer work; transportation and accommodation

costs for patients who don't live near the cancer centres, and the significant costs associated with medications and medical supplies for individuals without medical coverage.

Crosstab analyses were conducted to determine if there were any differences across the 9 district health authorities in the number of family physicians to report that their patients experienced difficulty navigating through the cancer process. Due to the small sample sizes, districts one through seven were combined to show an overall response of districts outside the two tertiary care centres. As shown in Table 13, over 50% of respondents in Capital Health and outside of the tertiary care centres reported difficulties navigating through the system. In contrast, only 28% of respondents in Cape Breton reported having difficulties.

As would be expected, the number of family physicians who reported their patients had difficulty navigating through the cancer process was positively correlated with the number of cancer patients seen annually (r_{gamma}=.30, p<.005). The more patients seen, the more patients reported difficulty.

Table 13: Percentage of family physicians with patients who reported difficulty navigating their way through the cancer care process, for districts with and without tertiary care centres.

	Family Physicians N (%)	
	No	**Yes**
Districts outside of the 2 tertiary care centres (Districts 1-7)	25 (47%)	28 (53%)
Cape Breton District Health Authority (District 8)	13 (72%)	5 (28%)
Capital Health (District 9)	26 (40%)	39 (60%)

Barriers to care

Physicians were given a list of 8 potential barriers and asked to rate the degree to which each impeded their ability to improve the care of cancer patients within their practice. Table 14 shows that the most significant barriers for family physicians were: difficulty getting an appointment with a specialist, and unclear or incomplete guidelines for continuing care when patients return to their care. Some physicians elaborated in the comments section that they would like to receive patient information and guidelines for follow-up from the Nova Scotia Cancer Centre in a simplified format (e.g., a progress chart). There were no differences across the nine district health authorities in family physicians ratings of these barriers. Community specialists rated lack of physician time and inadequate community resources as the most significant barriers; however, these were not rated as highly as the factors selected by family physicians.

Some family physicians (n=5) indicated that the reimbursement schedule in the fee for service model is a barrier to improving cancer care. The main concern was that there is no fee code to cover the long sessions required for cancer education and support.

Table 14: Barriers to improving the care of cancer patients (rated on a 5 point scale: 1=not at all a barrier and 5=significant barrier).

	Family Physicians			Specialists		
	Mean	**SD**	**N**	**Mean**	**SD**	**N**
Difficulty getting an appointment with a/another specialist	3.7	1.2	146	2.7	1.2	50
Unclear or incomplete guidelines for continuing care when patients return to my care (FP's only)	3.4	1.2	147	----	----	----
Unclear about the kinds of guidelines family physicians need when returning patients to their care (Specialists only)	----	----	----	2.7	1.1	50
Inadequate community resources	3.3	1.3	139	3.2	1.1	50
Lack of physician time	3.3	1.3	142	3.2	1.3	50
Public not aware of need for prevention and screening	3.2	1.0	145	3.1	1.1	50
Lack of communication with (other) specialists caring for my patients	3.1	1.3	144	2.6	1.1	51
Lack of patient education materials	3.0	1.1	142	2.8	1.2	48
Lack of CME programs in cancer care	3.0	1.2	145	3.1	1.0	50
Lack of communication with family physicians caring for my patients	----	----	----	2.3	1.1	50
Other	4.4	1.4	8	----	----	----

'Difficulty getting an appointment with a specialist' and 'unclear or incomplete guidelines for continuing care' were significantly correlated with community size. Family physicians in larger communities rated these as greater barriers than those in smaller communities (r_{gamma}=-.30, p=.001; r_{gamma}=-.26, p<.05, respectively). This relationship requires further exploration.

Community Resources

As noted in Table 14 above, "inadequate community resources" was rated as a barrier to care. To further explore this topic, physicians were given a list of the currently available community resources and asked to rate the usefulness of each and to indicate whether they were aware of and/or used each resource. Table 15 shows the percentage of family physicians and community specialists who were not aware of or did not use these resources, and the mean ratings for the usefulness of each resource as reported by those respondents who did use them.

The most commonly used and most highly recognized community resource was Home Care Nova Scotia which was used by 90% of family physicians and 84% of specialists followed by social workers and clergy/pastoral care. However, many physicians reported that they did not use or were not aware of the other available resources. For example, some of the resources rated as being the most useful (e.g., Nova Scotia's Pink Rose Program, the Nova Scotia Breast Screening Program's patient navigator, and the Canadian Cancer Society's patient support groups) were only used by about 50% of physicians. Others, such as the Canadian Cancer

Society's Cancer Information Service were used by fewer than 35% of respondents. Two family physicians claimed that there are limited resources available in some districts, particularly in remote rural areas.

Family physicians rated Nova Scotia's Pink Rose Program, the Nova Scotia Breast Screening Program's patient navigator, and Home Care Nova Scotia as the three most useful community resources, and the Canadian Cancer Society's Cancer Information Service as the least useful. According to community specialists, however, the most useful resources were pastoral care, the Canadian Cancer Society's patient support groups, and social workers. Conversely, the least useful were the Canadian Cancer Society's Cancer Information Service and *Cancer Care Nova Scotia*.

Table 15: Physicians' mean ratings on the usefulness of the following community resources (rated on a 5-point scale where 1=not useful and 5=very useful).

	Family Physicians					Community Specialists				
	Mean*	SD	N	% Not Aware	% Not Used	Mean*	SD	N	% Not Aware	% Not Used
Nova Scotia's Pink Rose Program	4.1	1.1	75	17.5	30.1	3.1	1.5	16	32	36
Nova Scotia Breast Screening Program's patient navigator	4.0	1.1	77	11.1	35.4	2.9	1.3	13	26	48
Home Care Nova Scotia	3.9	1.1	135	0.7	6.9	3.5	1.3	42	4	12
Canadian Cancer Society's patient support programs	3.7	1.0	86	6.9	33.8	3.6	1.1	25	12	38
Cancer Care Nova Scotia	3.7	1.0	77	6.1	27.0	1.7	1.8	35	2.1	23.4
Clergy or pastoral care	3.6	1.1	126	1.4	11.7	3.7	1.2	35	6	24
Social workers	3.6	1.2	114	4.4	12.4	3.5	1.3	39	---	22
Canadian Cancer Society's Cancer Information Service	3.5	1.2	48	14.2	51.7	2.8	1.4	15	14	56
Other community resources	4.5	0.7	2	25.0	25.0	---	---	---	---	---

*The mean was calculated after responses indicating "Not aware" and "Not used" were eliminated.

The other resource added by family physicians was the palliative care program (n=2). This is also reported in Section 2 under clinical resources. One surgeon commented that Palliative Care works great and that Home Care Nova Scotia "needs to take a page" from them.

1.5 Oncologists' perspectives on current challenges in cancer care

In the interviews, the oncologists addressed several the challenges identified in the physicians' questionnaire. Their perspectives have been categorized under 2 headings: challenges affecting diagnosis and challenges affecting follow-up care.

Challenges affecting diagnosis

Family physicians had indicated that the most significant barrier to improving the care of cancer patients within their practice was difficulty getting appointments with specialists. However, the oncologists were divided as to whether or not the actual time from referral to appointment was a problem. Some indicated problems, and others believed that the Canadian Association of Radiation Oncologist standards were generally met; i.e., patients were seen within two weeks of referral. Additionally, a couple of oncologists indicated that a triage system was in place that prioritized patients by urgency. For example, referrals that are deemed "high priority" (e.g., aggressive lymphomas like the T-cell lymphoma) are usually seen within a week; whereas, those that are less urgent may not be seen for several weeks.

As described by one oncologist, obtaining a timely diagnosis is "not a simple problem" and is "multifaceted." Oncologists interviewed identified 2 general concerns in this area:

1. Patient's waiting experience from the time they are told they have cancer to the time they see the specialist. This waiting period may not be medically significant; however the patients' anxiety and fear during this time causes them to perceive it as highly problematic.
2. Patient referral process to the specialist. This includes the quality and timeliness of the information provided as well as the appropriateness of tests conducted prior to the referral.

Several oncologists provided suggestions for minimizing the occurrence and impact of lengthy wait periods:

<u>1. Patient's waiting experience</u>

- Patients need information, support and reassurance during the waiting period. When patients receive information during the wait period they are better prepared and less anxious and fearful when they see the specialist.
- Expansion of the Nova Scotia Cancer Centre Breast Cancer Link Program would improve cancer care. The Link Program, piloted with breast cancer patients, and the *CCNS* Navigator Program, currently being piloted in three health districts, were positively appraised strategies for supporting patients during the waiting period.

Waiting was also emphasized by patients and family members in the *CCNS* Patient Navigation Qualitative Study as a serious concern. Participants felt it was crucial for the emotional and psychological aspects of cancer to be addressed. After receiving a diagnosis of cancer, patients are very afraid and need assistance in adjusting to the diagnosis. They need someone with whom they can ask questions and share their thoughts and feelings during this stressful time. They also need to be fully informed of the cancer process and how much time it will take.

<u>2. Patient referral process</u>

- Referring physicians need to be informed as to the appropriate referral process and the information required.
- Improved and timely referral communication:
    - The referral letter to the specialist should be complete and adequately describe the patient's status so urgent cases can be identified.
    - Physicians should fax, not mail, referral letters to decrease delays.
    - Physicians should call the specialist if a patient needs to be seen more promptly.
- More personnel and resources are necessary to reduce waiting periods and improve cancer care overall.

Challenges affecting follow-up

The oncologists identified several challenges that family physicians face in providing follow-up care to their cancer patients. Some factors have contributed to lengthy and unnecessary follow-up at the cancer centre. They include:

- patient proximity to a centre;
- family physicians not feeling invited to resume care for their patients;
- patients' preference to remain at the centre and reluctance to return to the family doctor;
- insufficient palliative care services in some parts of the province;
- family physicians' lack of comfort with follow-up.

Most oncologists felt that family physicians would benefit from guidelines and support in this area. With the use of guidelines, checklists, and/or notes from oncologists, physicians would be aware of the appropriate follow-up and become more comfortable doing it. Moreover, there was general support among oncologists that improved communication would enhance cancer care. Their comments were grouped into two categories:

1. Written communication
    - Oncologists placed great importance on communicating written clinical information (clinical notes, progress reports, discharge summaries) to family physicians in a timely manner.
    - Recent institutional improvements at the QEII to the dictation turnaround time should help alleviate this problem (cited by 5 participants).

2. Technology and improving communication
    - A third of participants mentioned that technology would benefit communication and patient care. Suggestions included electronic charts, a good provincial information system that allowed access to lab and diagnostic imaging results, and electronic conferencing.

SECTION 2. Educational needs to improve provision of cancer care

Family and specialist physicians' perceived educational needs were identified in several ways:

1. Both family physicians and community specialists rated topics related to *treatment* and *communication skills*.
2. Family physicians also rated topics related to *prevention and screening*, and *specific skills*.
3. Oncologists provided opinions about family physician and community specialist learning needs.

2.1 Cancer treatment and communication skills: Family physician and community specialists perceived learning needs

Cancer treatment

Physicians were given a list of 10 general topics related to cancer treatment and continuing care and asked to rank their top 5 preferences for CME programs. Additionally, for each of their 5 preferred topics, physicians were asked to identify 2 specific topics of interest to them.

Table 16 shows the ranked order and weighted scores of all topics for family physicians and community specialists, from highest to lowest. The 5 preferred topics for family physicians were symptom management, pain management, supportive/palliative care, oncological emergencies, and chemotherapy. For specialist physicians, the 5 preferred topics were chemotherapy, surgery, symptom management, pain management and oncological emergencies.

Table 16. Physicians' rankings for CME programs in treatment and continuing care in order of preference based on weighted scores.*

Family Physicians (weighted score)	Community Specialists (weighted score)
1. Symptom management (436)	1. Chemotherapy (101)
2. Pain management (398)	2. Surgery (100)
3. Supportive/palliative care (276)	3. Symptom management (86)
4. Oncological emergencies (254)	4. Pain management (79)
5. Chemotherapy (202)	5. Oncological emergencies (73)
6. Alternative and complementary therapies (168)	6. Radiation therapy (59)
7. Adjuvant therapy (107)	7. Supportive/palliative care (56)
8. Radiation therapy (92)	8. Adjuvant therapy (55)
9. Hormone therapy (87)	9. Alternative and complementary therapies (52)
10. Surgery (61)	10. Hormone therapy (40)

*refer to "questionnaire analysis" on page 13 for description.

As requested, respondents suggested specific topics of interest for each of their 5 preferred general topics. Table 17 shows specific topics identified by at least 4 family physicians for each of the general topics. The 2 most frequently identified specific topics were "nausea", under symptom management, and "identification of side effects & instruction on managing them", under chemotherapy.

Table 17. Specific CME topics identified by at least 4 family physicians.

FP specific topics	
General topics	**Specific topics (frequency)**
Symptom management	Nausea (28) Fatigue (11) Constipation (9) Anxiety (4)
Pain management	General information: types of pain treatments (12) Opiods (6) Non-pharmalogical means of pain management (5) Prescribing medications (5) Non-opiods (4) Early versus terminal pain management needs (4)
Supportive/palliative care	Availability and accessibility of community resources (11) Family support groups (5) Home care/respite (4) How to manage patients in palliative care (4) Dying at home (4)
Oncological emergencies	Recognition and management (11) Common emergencies (10) Febrile neutropenia (7)
Chemotherapy	Identification of side effects and instruction on managing them (22) Current Rx chemotherapy protocols for specific cancers (9) New protocols in chemotherapy (6) Risks vs. benefits of chemotherapy (5) Lymphomas and leukemia (4)
Alternative and complementary therapies	Effectiveness of alternative therapies (10) Herbal remedies (9) Common/accepted practices (8) General info: types, procedures (8)
Adjuvant therapy	Common available therapies (4)
Radiation therapy	Side effects (5) Complications (4) General info: treatment for various cancers (4)
Hormone therapy	Prostate cancer (5) When to use/when not to use (4) Breast cancer (4)
Surgery	Post-op care (4)

Although community specialists also identified several specific topics, few of these were mentioned by more than 3 respondents. This is not surprising as the group represented surgeons, internists, obstetricians/gynecologists, and pediatricians. The complete list of topics, categorized by specialty, is reported in Appendix F and topics identified by at least 3 specialists are reported in Table 18. Updates on newest surgical technologies and recommendations was mentioned most frequently.

Table 18: Specific CME topics identified by at least 3 community specialists.

Community Specialist specific topics	
General topics	**Specific topics (frequency)**
Chemotherapy	Side effects (4) Colorectal cancer (3)
Surgery	Updates on newest technology and recommendations (5) Current melanoma guidelines (4) Breast cancer (3)
Symptom management	Pain control (4) Nausea (4)
Adjuvant therapy	Colorectal cancer (3)
Hormone therapy	General info: pros and cons (3)

Communication skills and grief management

Communication skills are a key component of health care. Physicians were provided with a list of four communication situations and asked to indicate their *current skill level* for communicating with patients with cancer, and what they perceived as the *needed skill level* in each area.

As shown in Table 19, family physicians and community specialists gave similar ratings on this topic so it will be reported together. Both groups rated their ability to break bad news about cancer to patients and families higher than their other communication and grief management skills. Although all skills were rated higher than 3 (average understanding), there were statistically significant differences between their ratings of "present" and "needed" levels for all topics. These findings suggest that family physicians and community specialists believe their communication and grief management skills with cancer patients need to be improved.

Table 19: Physicians' present and needed knowledge and skill levels in communication with cancer patients.

	Family Physician				**Community Specialist**			
	Present Level n~147		**Needed Level n~124**		**Present Level n~51**		**Needed Level n~46**	
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Breaking bad news to patients and families about cancer*	4.0	0.8	4.5	0.9	3.96	0.72	4.28	0.93
Dealing with patient and/or family grief**	3.9	0.9	4.5	0.8	3.80	0.78	4.38	0.82
Dealing with your own grief/stress**	3.5	1.0	4.4	0.9	3.37	1.00	4.22	0.96
Dealing with patient and/or family anger**	3.5	0.9	4.5	0.8	3.22	0.81	4.26	0.85
Other	3.8	1.3	3.6	1.3	----	----	----	----

* The difference between the present and needed level for FPs is significant at $p<.001$ and specialists at $p<.05$.

** The difference between the present and needed level is significant at $p<.001$ for both FPs and specialists.

The "other" comments noted in the table above were about frustration with the system (n=1) and dealing with conflict with other health care professionals (n=1).

Patient and family member reports from the Patient Navigation Qualitative Study contradict these findings. Many participants reported that family physicians lacked empathy and compassion when informing them of the diagnosis. Some also indicated that they were inappropriately informed of their diagnosis over the phone, even when they were home alone. To improve communication about cancer, suggestions were made to establish a standard for physicians to follow when informing their patients of such a severe diagnosis.

2.2 Prevention and screening, and cancer care skills: Family physician's perceived learning needs

Family physicians were presented with a list of topic areas related to cancer prevention, and cancer screening and early detection. They were asked to indicate both their *current level* of knowledge and skill and what they perceived as the *needed level* in each of these areas using a 5-point scale where 1 indicated no understanding, skill or experience and 5 indicated strong understanding, skill or experience.

Cancer prevention

Table 20 shows that family physicians rated their current knowledge and skill levels in cancer prevention very high for smoking cessation counseling, instruction in breast self-examination and skin cancer prevention counseling. There was no difference between their present and needed levels for these first two topics; however, the needed level for skin cancer prevention was significantly higher than their self-reported present level of knowledge and skill ($p<.005$). There were also significant differences between physicians present and needed levels for weight loss counseling ($p<.005$), nutrition counseling ($p<.001$), and advising patients about cancer-related environmental factors ($p<.001$). These differences in present and needed levels suggest that physicians think they need to improve their knowledge and skills in these areas to perform effectively in family practice. The lower present level for advising patients about cancer-related environmental factors suggests that this may be a greater learning need than the other cancer prevention topics.

Table 20: Family physicians' present and needed knowledge and skill levels in cancer prevention.

	Present Level			Needed Level			Significant p-levels
	Mean	SD	N	Mean	SD	N	
Smoking cessation counseling	4.4	0.7	149	4.4	1.0	125	-----
Instruction in breast self-examination	4.4	0.8	147	4.3	1.0	124	-----
Skin cancer prevention counseling	4.1	0.8	148	4.4	0.9	129	p<.005
Weight-loss counseling	3.8	0.9	146	4.1	1.0	126	p<.005
Nutrition counseling	3.6	1.0	147	4.2	0.9	128	p<.001
Advising patients about cancer-related environmental factors	3.1	1.1	148	4.2	0.8	127	p<.001

Correlation analyses revealed a significant relationship with graduation year and family physicians' present level ratings for instruction in breast self-exams (r_{gamma}=.25, p=.01). More recent graduates tended to rate their present levels higher than older grads.

Cancer screening and early detection

Table 21 shows the mean ratings for family physicians' perceptions of their present and needed levels in cancer screening and early detection. Physicians rated their present knowledge and skill levels for cervical, breast and prostate cancers quite high (> 4), indicating they have a fairly strong understanding, skill and/or experience in these areas. There was no difference for physicians rating of their needed skill level with cervical cancer, however, there were significant differences between the present and needed levels for all other topics (p<.001). Physicians rated their present knowledge and skill level in genetic/hereditary testing of patients' disposition for cancer much lower than the other topics, yet thought this was needed at the same level as the others. This finding suggests a great learning need in this area.

Table 21. Family physicians' present and needed knowledge and skill levels in screening and early detection.

	Present Level			Needed Level			Significant p-levels
	Mean	SD	N	Mean	SD	N	
Cervical cancer	4.6	0.6	148	4.6	0.9	122	----
Breast cancer	4.3	0.7	147	4.6	0.8	125	p<.001
Prostate cancer	4.0	0.9	148	4.5	0.7	124	p<.001
Melanoma	3.9	0.8	148	4.5	0.8	124	p<.001
Colon cancer	3.9	0.9	148	4.5	0.8	124	p<.001
Lung cancer	3.8	0.9	148	4.4	0.9	125	p<.001
Genetic/hereditary testing of patients' disposition for various forms of cancer	2.6	1.0	138	4.4	0.7	116	p<.005

Measures of association and MANOVAs were conducted to determine if there were any differences in ratings of present and needed levels based on community size, district, graduation year and number of newly diagnosed cancer patients. The results revealed a significant relationship between family physicians' ratings for their present skill levels for colon, lung and prostate cancer with the size of the community where they practice (r_{gamma}=.29, p<.01, r_{gamma}=.24, p<.05, r_{gamma}=.21, p=.05, respectively). Family physicians in rural communities tended to rate their present skill and knowledge levels in these areas higher than those who practiced in larger communities. However, there was no difference in their ratings for the needed skill/knowledge level in these topics. Unlike family physicians in communities with more than 5,000 people, there was no difference in respondents' ratings of their present and needed levels in the areas of colon, lung and prostate cancer, indicating that physicians in rural communities did not feel they needed much improvement in these areas.

There were also significant correlations between family physicians' rating of their skill level in the detection of lung cancer with graduation year (r_{gamma}=-.26, p<.01) and the number of cancer

patients in their practice (r_{gamma}=.20, p<.05). The older the graduate and the more patients with cancer, the higher family physicians rated their present level in this area.

Skills for which CME would be useful

Family physicians were presented with a list of 10 skills and asked to indicate the usefulness of CME for each. As shown in Table 22, family physicians rated "administration of nerve blocks for pain" (4.0/5) and "initiation and administration of intermittent medications" (3.7/5) as the most useful topics.

Table 22. Family physicians' mean ratings on the usefulness of CME for the following skills.

	Mean	SD	N	N/A
1. Administration of nerve blocks for pain	4.0	1.2	121	26
2. Initiation and administration of intermittent medications	3.7	1.1	135	9
3. Continuous subcutaneous medication administration	3.6	1.1	127	19
4. Care of implanted infusion port	3.6	1.2	116	32
5. Care of peripherally inserted central catheter	3.5	1.2	111	36
6. Care of tunneled external central venous catheter	3.4	1.2	109	39
7. Administration of chemotherapy	3.3	1.3	113	32
8. Clinical breast examination	2.9	1.4	140	5
9. Digital rectal examination	2.9	1.5	142	4
10. Pap test	2.6	1.5	138	7
11. Other	3.8	1.8	12	2

The other topics or skills, identified by family physicians, for which CME would be useful were: endometrial biopsy (n=2); new advances in cancer blood markers and genetic analysis; newer drugs; clinical exam CME's; PCA pump; newer analgesic protocols; dressings; hypnosis/self-hypnosis; diagnosis; management of radiation buns; paracentesis; and thoracentesis.

Measures of association and chi-square analyses were conducted on this data to determine if there were any relationships or differences for physicians' ratings on these skills based on community size, graduation year, district, and number of newly diagnosed patients they see annually. The following significant results were found:

- Significant group difference in usefulness ratings for 'continuous subcutaneous medication administration'. This was rated significantly more useful for communities with populations greater than 50,000 than other community sizes (X^2 (10)=25.8, p<.005).

- Care of PICC lines and tunneled external central venous catheters were rated significantly less useful by communities 5,000 – 50,000 than other 2 community sizes (X^2 (10)=22.9, p=.01; X^2 (10)=20.1, p<.05).

- Trend for family physicians in smaller communities to rate 'administration of nerve blocks for pain' as a more useful topic than larger communities (r_{gamma}=.23, p<.05).

Family physicians were also asked open-ended questions about whether there were any additional knowledge areas or skills, related to the care of cancer patients, about which they would like to learn or practice. This question generated several suggestions for CME topics. Written comments were grouped into the following themes:

- Palliative care, symptom relief, pain management (n=6)
- Chemotherapy (n=4)
- Communication and access to specialists (n=3)
- Communication skills with patients and families (n=3)
- Other skills identified were: suprapubic catheter insertion; throracentesis; hypnosis; steroidal intra-joint injections; ostomy care; new drugs; acupuncture for pain control; methadone; paraneoplastic syndromes; symptoms/physical signs to watch for with primary vs. metastic disease for various cancers; access to current protocols for treatment of most common cancers, with list of expected side effects, and dealing with angry patients and families

Expectations for impact of CME on practice

Family physicians were asked about their expectations of the impact of CME upon their practice. As shown in Table 23, the two main outcomes expected from CME programs were more effective pain management, and improved communication with patients and their families about cancer diagnosis, treatment and palliative care. Two other outcomes received the same weighted score and were ranked third: being able to play a larger role in the treatment of patients with cancer, and increased participation in screening and early detection programs.

Table 23. Family physicians' ranked expectations for how CME programs will impact upon their practice (*refer to page 13 for description of weighted score calculation).

Rank	Weighted Score*	Expectation (1=highest rank)
1	1033	More effective pain management
2	925	Improved communication with patients and their families about cancer diagnosis, treatment and palliative care
3	882	Being able to play a larger role in treatment of my patients with cancer
3	882	Increased participation in screening and early detection programs
4	794	Being able to make more specific and timely referrals
5	787	Increased participation in preventive counseling
6	469	Increase my understanding of and participation in the District Care Program
7	458	Develop a network of colleagues interested in improving cancer care
8	451	Better able to cope with own emotions and stress when working with patients with cancer
9	10	Other

2.3 Oncologists perspectives on educational needs:
During the interviews, oncologists identified the needs and/or gaps in cancer care that they thought could be addressed by physician education. These generally reflect those identified in the questionnaires and are presented under the following headings: prevention, screening, diagnosis, treatment, follow-up, palliative care, and improving communication.

Prevention
Seven interviewees commented, affirming the primary care physician's role in prevention, including promoting good general health and providing smoking cessation interventions and follow-up.

Screening
Nine interviewees discussed screening, and most supported the need for education on screening. There was some diversity of opinion as to family physicians' knowledge levels. The views included good knowledge levels with no problems, needing to regularly apply information they already know, and needing information and guidelines. Also need to raise awareness of locally available screening resources.

Regional variation with respect to cervical cancer screening and cure rates suggested more physician education was indicated, according to one participant. Another participant thought patients' lack of willingness to present for screening was the main factor in the advanced cervical cancer found in his/her practice. Lack of a structured colorectal screening program, despite its similarity to breast cancer in prevalence and mortality, was noted by a few participants as a need, as opposed to education.

Diagnosis
Most comments addressed learning needs related to preventing diagnostic delays and conducting appropriate work ups.
- Some participants described receiving inadequate referral information and observing insufficient work - ups for new problems in cancer patients.
- Oncologists recommended education on common presentations of malignancy, recognizing early signs and referring patients earlier, and conducting appropriate work ups and ordering of appropriate tests (to avoid further delay once specialists were seen).

Treatment
- The depth of knowledge concerning specific treatment plans required by family physicians may be "debatable," in the words of one participant, since responsibility for determining treatment rests with the oncologists.
- Information on common side effects of chemotherapy treatments and emergency toxicities are important general learning needs.
- Oncologists perceived gaps in physicians' general knowledge about radiation therapy and side effects. Better recognition of side effects and progression of disease was mentioned.
- Pain management was a learning need raised by three radiation oncologists. Two oncologists reported inadequate pain management in the waiting period before the patient sees the cancer specialist.

Follow-up
There was widespread support for the family physician's role in providing follow-up care. A few participants described how follow-up by the family physician in the community is an efficient use of resources, allowing the oncologists to concentrate on new patients and their treatment.
- Specific learning needs or knowledge gaps identified by individual participants:

- information on long term side effects and recurrence rates (hematological cancer)
- immediate investigation and referral to radiation oncologist for back pain in cancer patient (presume metastasis)
- detecting early spinal cord compression so prophylactic radiation therapy may be given (interviewee perceived high prevalence of advanced compression being referred)

Palliative Care

- The ten participants who were given an opportunity to comment on palliative care expressed support for education in this area, recognizing it as an important component of cancer care. One oncologist noted that overall, 50% of patients are not cured and will require palliative care.
- Pain management was a specific educational need

Improving communication

- Several oncologists indicated that physicians' communication skills generally could be improved. The following specific areas for skill development were suggested: informing the patient of the diagnosis, and providing basic information and psychological care during the wait to see an oncologist.

SECTION 3. Learning Methods and Clinical Resources

Physicians were asked to identify their preferred learning methods and clinical resources. Three main issues are addressed in this section:

1. Family physicians' and community specialists' preferred learning methods to learn about cancer care.
2. Family physicians' and community specialists' perspectives on the usefulness and availability of clinical resources designed to assist with their care of patients with cancer.
3. Oncologists' opinions about learning methods, clinical resources and their role in providing these for family physicians and community specialists.

3.1 Preferred ways to learn about cancer care

To examine physicians' preferred learning methods, respondents were given a list of learning methods and programs and asked to indicate their preference for each using a 5-point scale where 1 indicated a low preference and 5 indicated a high preference. This list was divided into 3 sections: (1) preferred method; i.e., the specific type of formal educational method that is used (e.g., lectures, workshops), (2) preferred type of program; i.e., the presentation of the program (e.g., preceptorship, symposium, or Internet), and (3) personal or "informal" learning; i.e., methods that may be used individually and which are not part of a formal program (e.g., journal articles, helpline to an oncologist).

The data for both family and community specialists are presented in Table 24.

Preferred method

Family physicians rated programs which include both lecture and workshop (4.1), small group discussions (3.8) and interactive workshops (3.8) as their top 3 preferred learning methods. The top three for community specialists were programs which include both lecture and workshop (3.8), lecture presentations (3.6) and small group discussions (3.4).

Preferred type of program

Family physicians' preferred types of programs were ones that incorporated cancer care into existing Dal CME programs (4.0) and 1-2 day symposiums (3.7). These were also the preferences of community specialists, however in reverse order with 1-2 day symposiums as their top choice.

Personal or "informal" learning

Family physicians rated checklists or instructions for managing patients and continuing care (4.4) and helpline to an oncologist for consultation (4.2) as their preferred methods for "informal" learning. Please refer to page 40 for a discussion of the oncologists' perspectives on these. Community specialists rated a database of oncologists to consult about specific cancer-related problems (4.0) and reading journals and texts (3.4) as their top two choices.

Table 24: Physicians' preferences for how to learn about cancer care.

	Family Physicians			Community Specialists		
	Mean	**S D**	**N**	**Mean**	**S D**	**N**
Preferred Method:						
Programs which include both lecture and interactive activities	4.1	1.0	142	3.8	1.2	50
Small group discussions	3.8	1.1	135	3.4	1.0	50
Interactive workshops	3.8	1.2	137	3.4	1.0	51
Lecture presentations	3.5	1.3	135	3.6	1.0	50
Preferred Type of Program:						
Incorporating cancer care into existing Dal CME programs	4.0	1.0	138	3.4	1.2	50
1-2 day symposium	3.7	1.2	135	3.8	1.2	51
Interactive video-conferenced CME programs	2.9	1.3	130	3.0	1.1	49
Interactive internet courses	2.8	1.4	132	2.9	1.1	49
Preceptorship	2.6	1.5	134	2.6	1.4	49
Journal clubs	2.4	1.2	127	2.5	1.2	49
Personal or "Informal" Learning:						
Checklists or instructions for managing patients and continuing care	4.4	0.9	144	---	---	---
Helpline to an oncologist for consultation	4.2	0.9	138	---	---	---
A database of oncologists to consult about specific cancer-related problems	---	---	---	4.0	0.9	50
Reading journals and texts	3.4	0.7	137	3.4	1.0	51
Evidence-based cancer care website	3.4	1.2	131	3.2	1.2	50
CD-ROM	2.9	1.3	130	3.3	1.3	49
Other	3.5	0.7	2	5.0	---	1

Respondents included several written comments in this section. The two main themes arising from their comments were that there is lack of time for learning (n=6) and preceptorships are time consuming and too expensive (n=5).

Chi-square analysis and measures of association were conducted to determine if there were any differences in or relationships with family physicians' learning preferences and the size of

the community where they practice, the district, graduation year and the number of newly diagnosed patients with cancer seen annually. The following significant relationships existed: the smaller the community size the higher the preference rankings for lecture presentations (r_{gamma}=.244, p<.05). Family physicians in large communities with more than 50,000 people rated interactive video-conferenced CME programs much lower than smaller communities (X^2 (8)=16.1, p<.05). The latter is not surprising given the increased access to CME in larger communities.

The number of newly diagnosed cancer patients seen annually by family physicians was shown to be negatively correlated with physicians' ratings for incorporating cancer care into existing Dalhousie CME programs (r_{gamma} = -.28, p=.005) and checklists/instructions for continuing care (r_{gamma} = -.24, p<.04). Physicians with fewer patients with cancer tended to be more positive about these options, whereas those who saw more cancer patients did not rate them as highly. However, physicians with a greater number of cancer patients tended to be more positive about the use of preceptorships for learning about cancer (r_{gamma} = .19, p<.04).

Some specific suggestions were made by family physicians and community specialists for how to effectively educate physicians. The following suggestions were each made by one physician:

- Use video-tapes or visual aids to review 'how to's" for certain skills (e.g., the care of implanted infusion port, PICC Lines, and tunneled external central venous catheter).
- Establish programs similar to those that work well in other provinces. For example, "patients registered in the BC cancer follow-up program bring their own cancer guide book to complete investigations/exam on a regular schedule. This is extremely helpful".
- Develop a general reference guide for the five most common cancers, for follow-up of post surgery and chemotherapy treatment.
- Use models with medical students so that they can practice feeling the various abnormalities; i.e., same way as breast models are used in NSBSP.
- Provide continuing care guidelines. Ideally these would include simplified information about: (1) regime used, with an algorithm to follow for managing complications of chemo, (2) a copy of the clinic's impression of patient progress, (3) a simplified progress chart, and (4) next clinic appointment.
- Increase the number of CME's with updated cancer info. Currently there are few of these.
- Self-learning modules might be useful and good to have for reference.
- Need more exposure to alternative techniques taught by both pro and con instructors.
- What symptoms or physical signs to watch for with primary vs. metastatic disease for various cancers.
- Need easy access to the current protocols for treatment of the most common cancers, along with a quick list of expected side effects.
- A flow chart for care and follow-up should be available to the MD to make better, more precise notations of how the patient is really doing.
- Dedicate a section of doctorsns.com to cancer care
- Help line to pain management psychologist and social workers.
- Up to date educational material with a local (NS) "flare" so that "local" treatments are explained. These need to be designed for all levels from patient, family, RNs, MDs, etc.
- Email access to database of oncologists

Preferred location for formal CME programs

Physicians were asked where they would prefer to attend formal CME programs in cancer care: in their own community or in a central location. Table 25 shows the breakdown of responses by

district. The majority of family physicians in the South Shore, Southwest Nova, Annapolis Valley, Cumberland and Pictou County district health authorities reported that they would prefer CME in their district, whereas those in Colchester East Hants, Cape Breton, and the Capitol Health districts preferred a central location. Most community specialists did not have a preference for where they attended programs with the exception of those in Southwest Nova who all had a preference for CME in their own community.

Table 25: Physicians' preferred location for attending formal CME programs

District Health Authority		Family Physicians				Community Specialist			
		Own community	Central Location	No preference	N	Own community	Central Location	No preference	N
1	South Shore	58.3%	16.7%	25%	12	14.3%	28.6%	57.1%	7
2	Southwest Nova	63.6%	27.3%	9%	11	100%	---	---	6
3	Annapolis Valley	90%	10%	C	10	16.7%	50%	33.3%	6
4	Colchester East Hants	12.5%	50%	37.5%	8	---	---	100%	1
5	Cumberland	83%	16.7%	---	6	---	---	100%	1
6	Pictou County	66.7%	33.3%	---	3	50%	---	50%	2
7	Guysborough Antigonish Strait	40%	40%	20%	5	50%	50%	---	8
8	Cape Breton	23.5%	58.8%	17.6%	17	14.3%	57%	28.6%	7
9	Capitol Health	32.5%	52%	15.4%	65	16.7%	66.7%	16.7%	6

Crosstab analyses were conducted to compare family physicians' preferred location for CME programs and the size of the community where they practice. Table 26 shows there was a significant relationship (r_{gamma} = -.30, p<.05) between these two variables. There was a trend for family physicians in larger communities to prefer CME programs in a central location (which could also be their own community) whereas those in more rural areas preferred CME programs in their own community.

Table 26. Breakdown of physicians' preferred location for CME programs and the size of the community where they practice.

	Community Size		
Preferred Location	**> 50, 000**	**5,000 – 50,000**	**< 5,000**
Own Community	18 (34%)	24 (43%)	16 (59%)
Central location	27 (51%)	21 (38%)	9 (33%)
No preference	8 (15%)	11 (20%)	2 (7%)
Total	53	56	27

3.2 Usefulness of Clinical Resources

Ideally, clinical resources should provide physicians with easily accessible information that can assist with patient care and help them to meet their educational needs. Physicians were presented with a list of several currently available clinical resources and asked to rate the usefulness of these resources in assisting them to care for their patients with cancer.

Table 27 shows that family physicians and community specialists both rated the local palliative care program and telephone consultations with oncologists as the most useful clinical resources. The least useful clinical resources for both groups of respondents were the cancer-related and Medical Society of Nova Scotia (MSNS) websites. However, only half (ranging from 40-58%) of respondents report using the cancer-related and MSNS websites.

Table 27: Physicians' mean ratings on the usefulness of specific clinical resources.

	Family Physicians					Community Specialists				
	Mean*	SD	N	% Not Aware	% Not Used	Mean*	SD	N	% Not Aware	% Not Used
Local palliative care program	4.3	0.9	126	6.9	6.9	4.1	0.8	42	6.0	10
Telephone consultations with oncologists	4.1	0.8	123	6.2	9.6	4.1	1.0	46	3.9	5.9
Clinical practice guidelines	3.8	1.0	110	10.1	12.8	3.8	1.0	30	27.5	13.7
Reminder systems for flagging patient charts for screening	3.6	1.2	80	12.6	31.5	3.4	1.5	19	28	34
Cancer-related websites	3.3	1.2	61	11.0	46.9	3.2	1.0	26	14	34
MSNS website	3.2	1.3	76	2.8	44.8	2.9	1.2	29	2	40
Other clinical resources	5.0	0.0	2	20.0	40.0	---	---	---	---	---

*The mean was calculated after responses indicating "Not aware" and "Not used" were eliminated

3.3 Oncologists' perspectives on learning methods

During the interviews, oncologists were asked their opinions about the best methods for family physician and community specialist learning about cancer care. Oncologists generally supported the preferred methods for physicians as identified above. This section describes their responses using similar categories as above: preferred method, type of program, personal or "informal" learning, preferred location, and the oncologists' role in providing education sessions.

Preferred methods and types of programs, and preferred location

Oncologists gave their opinions about the effectiveness of the various types of educational methods and programs that can be used for teaching physicians about cancer care. Following is a summary of their perspectives:

- The importance of providing continuing education to physicians in their own communities was highlighted by a third of participants. Workshops and teleconferencing could be used to link physicians in remote communities.

- There was widespread support for interactive methods, with opportunity for discussion and case study content that can be immediately related to patients.

- *Workshops* were viewed as "good" or having some value by most participants. Workshops could be delivered in physicians' communities and were seen as the most appropriate format for some topics or special skills (communication, technology). Perceived disadvantages included poor attendance and their time consuming nature.

- *Case study methods* were supported by more than half of the participants. Two perceived advantages were adaptability to many formats, including electronic conferencing with live presentation of cases and Internet access, and usefulness in helping physicians relate information to patients.

- *Preceptorships* received positive recognition as a learning method from more than half of participants. They are helpful for learning a lot of detail. Disadvantages were that preceptorships have significant costs, they require intensive time commitments for both preceptors and learners, and some felt there was little benefit to the family physician or too large a resource allocation (e.g. "bang for the buck").

- *Lectures* received mostly qualified support from five interviewees. More interactive methods were generally favoured. For one participant, lectures were acceptable only if accompanied by a facilitated question and answer session and discussion. Drawbacks included lack of absorption of more than a few key points and not being able to apply information to reality.

- Use of the *Internet* received a mixed reaction among the 8 participants offering comments. Some interviewees described possible applications, such as for case study, as a means of interaction, and for accessing information to download into more convenient Palm Pilots.

Personal or "informal" learning

Oncologists were asked specifically about their perspective on the benefits and feasibility of using checklists or instructions for managing patients and continuing care and a helpline to an oncologist for consultation, because family physicians had identified these as helpful activities. Overall, oncologists were positive about both suggestions. In fact, most indicated that an informal help line was already in place for physicians to contact the on-call oncologist.

Checklists

- Almost all participants responded positively to some use for checklists as a means to improve communication and care, specifically with respect to continuing care and/or follow up
- Two less enthusiastic viewpoints doubted the usefulness of simple, generic checklists but not the need for communication of clear recommendations.
- One person mentioned that clinical site teams had a strong potential role in developing checklists. (Cancer site teams are multidisciplinary groups of health professionals with a common interest and commitment to one kind of cancer or "cancer site". Generally, these are organized by anatomic site).

- Radiation oncologists and the surgical oncologist specifically advocated guidelines for appropriate investigations and work ups by primary care physicians for lung cancer (a "diagnostic dilemma") and breast cancer. A participant observed some physicians are uncomfortable doing breast exams when they are concerned about missing something or of what to do when abnormalities are found.

Help Line & Direct Phone Communication

- Oncologists expressed they were accessible by phone to family physicians and they indicated willingness to participate in some degree of direct phone contact to improve communication.
- There was complete support among interviewees for family physicians directly contacting oncologists with their questions.
- A 'help line' type of service already exists according to most participants, in that physicians can call directly and speak to the patient's own oncologist or an on-call oncologist. Several oncologists emphasized that they can be paged, and did not view access to an oncologist to be a problem.
- There appeared to be very little support for creating another structure with doubtful additional benefit.

  "…I don't know if you need a structure for that when they can just page us. Or talk to the physician on-call."

Oncologists' Role in Providing Continuing Education

- All interviewees expressed a strong role for oncologists in providing continuing education, as an educational resource within their areas of expertise.
- Oncologists identified three ways they could participate in educational activities, as summarized by one interviewee:

  "…[being] available for teaching sessions; being able to discuss the patient with the family doctor; and being able to participate in providing guidelines for treatment."

1. Participating in continuing education sessions (almost half of the interviewees thought oncologists should facilitate and/or provide support in education sessions)
2. Being available to family physicians (as discussed above)
3. Developing and providing practice guidelines
   - Clinical site teams have an important role in developing and communicating practice guidelines to general practitioners, according to several radiation oncologists.
   - Guidelines on screening, diagnosis, treatment and follow-up care should be concise (e.g. letters, checklists) with adequate supporting evidence.

Supports and Resources Required to Facilitate Participation

- To facilitate their participation, oncologists need coverage of patient care.

- A multidisciplinary approach to meeting learning needs of family physicians was supported by all interviewees. (Oncology nurses were most often mentioned (9 participants), followed by radiation therapists/technicians (4 participants) and experts in psychosocial care, such as psychologists, social workers and pastoral care providers (4 participants). Pharmacists (3 participants), family physicians (3 participants), occupational therapists, physiotherapists, and palliative care nurses were also named as educational resources).

SECTION 4. Models for community cancer care in Nova Scotia

Cancer Care Nova Scotia is implementing a District Cancer Program (DCP), a community-based model for caring for patients in their communities. As part of this initiative, they wanted to determine how physicians, specialists and oncologists would see their roles in this DCP model. Also, they wanted their opinions on the value of creating a position for a part-time Medical Coordinator, with specialized education in cancer care, for each of the District Health Authorities. This section is divided under the following three headings:

1. Awareness of the District Cancer Program
2. Physicians' preferred roles
3. The role of the part-time Medical Coordinator

4.1 Awareness of the District Cancer Program (DCP)

In the questionnaires, brief descriptions of the DCP and the part-time Medical Coordinator were provided for family physicians and community specialists. However, they were not asked if they were aware of this initiative prior to the questionnaire. The oncologists, on the otherhand, were specifically asked if they had heard of this initiative after they were given a brief introduction about it. At least 9 of the 11 oncologists indicated they were not aware of a proposed district program featuring a part-time Medical Coordinator. Five participants had not heard of the program/position, 2 were unsure; and 2 initially thought the question referred to a patient navigator or patient link program. Lack of information about the program made it difficult for participants to comment on specific roles. At least three interviewees questioned the need for a medical coordinator.

4.2 Physicians' preferred roles

Family physicians and community specialists were asked to indicate their preferred roles within their community. They were given a list of possible roles, specific to their professions, that they may perform when providing cancer care to their patients. From this list, they were asked to indicate their preferred roles using a 5-point scale where 1 indicated they wanted no role in the activity and 5 indicated they would prefer a large role. As shown in Table 28, family physicians indicated that they preferred having a role in screening and early detection, prevention, pain and symptom management, and with supportive care. Community specialists, however, preferred a role in diagnosis and as a consultant to family physicians.

Table 28. Family physician's and community specialist's preferred roles in providing cancer care within their community.

Family Physician		Community Specialist	
Role	**Mean**	**Role**	**Mean**
Screening and early detection	4.6	Diagnosis	4.4
Prevention	4.5	Consultant to family physician	4.2
Pain and symptom management	4.5	Prevention/screening	3.6
Supportive care	4.5	Pain and symptom management	3.5
Diagnosis	4.3	Surgical treatment	3.3
Palliative care	4.3	Supportive care	3.1
Coordinator of patients' care	3.5	The coordinator of your patients' cancer care	2.9
Managing simple chemotherapy	3.1	Palliative care	2.8
-------	-----	Chemotherapy	2.7

Measures of association revealed significant relationships with physicians' preferred roles with cancer patients and the following variables: number of newly diagnosed patients seen annually, graduation year, and the size of the community where physicians practiced. The following significant correlations were found:

- As the number of patients seen annually increased so did family physicians preference for the following roles: managing simple chemotherapy ($p<.001$), pain & symptom management ($p<.05$), palliative care ($p<.05$), and coordinator of patients' cancer care ($p<.05$).
- The fewer patients seen by family physicians, the more they preferred a role in prevention ($p<.05$).
- The smaller the size of the community where the family physician practiced, the larger the role they preferred with diagnosis ($p<.05$), managing simple chemotherapy ($p<.005$), pain and symptom management ($p<.005$), palliative care ($p<.001$), and coordinating their patients' cancer care ($p<.05$).
- The older the graduate the more family physicians preferred these roles: managing simple chemotherapy ($p<.05$), pain & symptom management ($p<.05$), palliative care ($p<.05$)
- The more recent the graduation, the greater the preference for a large role with screening and diagnosis ($p<.05$)

Oncologists

During the interviews, oncologists were informed of the proposed District Cancer Program and the possible development of a part-time Medical Coordinator position. They were asked to describe what they perceived as their role, the role of the family physician, and the role of the specialist in this model. Following are the roles that they identified:

Role of oncologist in DCP model

Oncologists perceived that they would do the following:

- Educate the medical coordinator
- Provide recommendations and site specific information
- Be available for consultation/resource
- Serve as a liaison to the coordinator
- Provide support and assistance
- Ensure consistency across districts

Role of the family physician in the DCP model

- Oncologists' reported that the family physician would serve a continued central role in front line primary care (screening, prevention and referral). A few participants indicated that some FPs could deliver chemotherapy with supervision by an oncologist.
- Three oncologists indicated that with additional preparation, family physicians could assume the Medical Coordinator role.

Role of the Community Specialist in the DCP model

The following specific roles were expressed:

- Providing support and intervention as problems arise
- Delivering chemotherapy and/or treatment if that is the goal
- "driving" the community-based program with family physicians.

4.3 Role of a part-time Medical Coordinator

- 55.9% of family physicians and 51.1% of community specialists believed a part-time Medical Coordinator would be of assistance, 36.4% of FPs and 31.9% of specialists were unsure.
- Family physicians in communities with populations between 5,000-50,000 were significantly more positive about the usefulness of a part-time Medical Coordinator than respondents in both smaller and larger communities ($X^2(4)=11.96$, $p=.02$).
- The 80 family physicians who believed the Medical Coordinator could be of assistance indicated the following roles for this position:
    - Advice concerning side effects of therapy – 83.8%
    - Advice regarding chemotherapy administration – 71.3%
    - Teaching about therapies and side effect management – 71.3%

Correlations revealed a relationship between physicians' suggestions for the Medical Coordinator's role and community size. The smaller the size of the community where physicians practiced, the more positive family physicians were about the medical coordinator providing advice about chemotherapy administration ($p<.05$) and serving as a coordinator of cancer care services for their district ($p<.05$).

Statistical analyses also revealed a marginally significant effect of district on suggestions for the role of the Medical Coordinator ($p=.055$). Over 50% of respondents in all districts except Capital Health thought this person should provide advice about chemotherapy administration.

- The 24 community specialists who believed the Medical Coordinator could be of assistance indicated the following roles for this position:

- Advice regarding chemotherapy administration – 83.3%
- Coordination of cancer care services for your district – 79.2%
- Advice concerning side effects of therapy – 75%

Oncologists

Seven of eleven participants described possible roles for a medical coordinator in response to an open-ended question. The range of responses indicated several different views on the scope of practice a coordinator might have, in terms of being a supportive source of information for family physicians, a consultant, a medical care coordinator or providing treatment. A few of these interviewees specifically mentioned the 'coordinator' title did not accurately reflect the possible functions, and were confused with patient navigator or liaison. Suggested roles:

- Coordinating delivery of chemotherapy outside the centre and working with community chemotherapy clinics (most frequently mentioned).

- Supporting family physicians or being a resource for them is another possible role (4 participants). A medical coordinator could answer physician's questions and disseminate information to them. A role in delivering continuing medical education was also mentioned, as was support for oncology nurses in the districts.

- Another view of support was that the coordinator could serve a patient navigator role and "get people through the system."

- A liaison role was suggested (4 participants). The coordinator could liaise between the Cancer Centre and family physicians and/or the community. Closer contact with the centre through a coordinator may increase communication and help improve service, according to one interviewee. A centre-based liaison, recommended by one oncologist, could work with community oncology network operations.

- Coordinating follow-up care was another role identified by 3 participants. Suggestions included facilitating outpatient care, transfer of the patient to the community, and palliative care.

DISSEMINATION TO *CCNS* GROUPS

Preliminary results of the physicians needs assessment was presented to three *CCNS* groups prior to the writing of this report:

1. Physicians Advisory Committee
2. Education Advisory Committee
3. *CCNS* Coordinator's Group

1. *CCNS* Physicians Advisory Committee (See Appendix A)

Preliminary results were presented to this group in February, 2002. Committee members discussed many issues and made suggestions. To date, two general suggestions have been addressed by the study team. These include:

- The physician data should be linked with those from patients in the Patient Navigation Study to look at the needs and priorities. Are both groups saying the same things? (Study team response: This has been done while preparing the report and data from the patient Navigation Study has been included in appropriate sections.)
- Conduct analyses to determine if physician learning preferences differ depending on their ages. (Study team response: Measures of association were conducted, and no relationships were found between age and learning preferences.)

The Physicians Advisory Committee raised the following questions and made the following suggestions for implementing results of the report:

Counseling in preventive care

- The first visit after a major diagnosis should have a different fee code than other visits so that counseling can be accomplished. This will allow physicians to spend more time talking to the patient about their diagnosis.
- Should increase the time for pap tests and have a new fee code.
- Can non-physician counselors help with preventive counseling? Can the navigator play this role?
- Need to increase patient and public education. Questioned whether current methods have any impact. Data suggests that many programs, i.e., the smoking cessation program, have very little impact on patients. There is usually more of an impact and increased motivation when the physician speaks directly to patients about preventive counseling.

Access to specialists

- Need to determine if physicians perceive the difficulties to be with oncologists or other intermediary specialists
- Check data on wait times for QEII cancer care programs.
- The perception of urgency for the family physician may come from family anxiety about the wait. Should coach the family physician.

Communication between the oncologist and family physician

- This is often a problem- sometimes there is a 6 week gap.
- Oncologists have trouble getting access to reports from some regional hospitals. In QEII emergency over weekends, general internists have difficulty getting access to cancer patient data as patients' charts are separate from the QEII patient charts.
- Possible suggestions discussed:
    - Oncologists could phone family physicians directly
    - Send and use faxed reports

- Allow family physicians to access dictated audio reports
- Greater involvement of patient navigator
- Use of QEII referral form by all regional hospitals.

Barriers to cancer care

- Non compliant patients
- Significant literacy problem in Nova Scotia. 50% of adults have trouble with written instructions (e.g., bowel prep). Education and procedural information need to be written in very basic language. Could generate information onto audiotapes.
- Difficulty accessing phone numbers for some screening procedures, e.g., mammography.
- People feel bogged down and discouraged when they try to navigate through the cancer system at the QEII. The organization is too complex. Patients are overwhelmed by the complexity of the physical layout, too much information, have to find way around.

Education

- Education programs/rounds could go on the Internet or Star Choice TV
- Question whether there should be different programs for different professional groups. Felt that topics such as supportive care and palliative care would be okay for interdisciplinary sessions.
- Education could focus on the community practice of cancer care and oncology, and use an interdisciplinary approach. It would be important to receive support of the community family physicians to such an approach before initiating this.

2. *CCNS* Education Advisory Committee (Appendix G)

This group is made up of representatives of most health care professionals involved in cancer care. The purpose is to guide the educational initiatives of *CCNS*, particularly in response to the various needs assessments. Preliminary results from the Physicians Needs Assessment were presented to this group in April, 2002. The Committee made the following specific points:

- Nearly 60% of family practitioners reported that MSI reimbursement is a significant factor interfering with prevention and screening. The Advisory Committee suggested that *CCNS* lobby the Department of Health for improved reimbursement to physicians for prevention and screening.
- Family physicians rated difficulty in getting an appointment with a specialist as the biggest barrier to care. It was noted that it was unclear who the "specialists" were. Does this refer to community-based specialists and/or oncologists?. The Advisory groups suggested that this be explored in greater depth during the focus groups. The group also wondered if there were published standards re: acceptable wait time based on cancer site and stage.
- There seems to be inconsistency between family and community specialist physicians' perception of wait times and that of oncologists. This needs to be clarified.
- It was noted that scheduling appointments with oncologists is sometimes delayed as the necessary tests have not been completed prior to the referral being made. Referrals may not be received in a timely fashion.
- The rationale for the learning need related to family physicians' administering nerve blocks for pain may be lack of anesthetist time in some hospitals.

The Education Advisory Committee was generally very supportive of the findings of the study and recommended that *Cancer Care Nova Scotia* begin to act upon the report, especially with respect to program planning.

The Committee also recommended that the results of the physicians needs assessment should be disseminated widely followed by those of the focus groups when they become available. Distribution should include but not be limited to:

- A letter and executive summary to all who participated in the needs assessment
- Presentations to physicians in their communities at hospital rounds and other CME events
- A presentation to oncologists to enable their use of the information when planning educational events
- A report to other health professional organizations such as the College of Registered Nurses of Nova Scotia
- *CCNS* newsletter
- Medical Society of Nova Scotia electronic newsletter
- Distribution of the report to all *CCNS* staff, so they can begin to respond to the data.

3. *CCNS* Coordinators Group

This group is comprised of the *CCNS* Executive Director and the coordinators of the *CCNS* programs. Preliminary results from the physician's needs assessment were presented and reviewed with this group in May, 2002. All coordinators raised important points related to their respective areas and noted how the results could be used within their programs.

CONCLUSIONS

Conclusions are drawn from key results, and are presented below by each section.

Section 1 - Current challenges in cancer care

Prevention and screening

1. Patient counseling is valued as an intervention in cancer prevention, but several factors interfere with family physicians' ability to provide it, particularly "lack of time", but also reimbursement schedules and lack of patient education materials.

2. Screening rates for asymptomatic women for breast and cervical cancer could be most improved through more public education for women and increased access to the NS Breast Screening Program and Well Woman Clinics.

3. Increasing the rate of use of digital rectal exam as a screening procedure for prostate cancer could best be improved by more public education for men, but it is important to clarify the evidence for this procedure.

Diagnosis, treatment and continuing care

4. Over 50% of family physicians indicated that their patients had reported difficulty navigating their way through the cancer care process. This confirms earlier findings from patients and their families as reported in the *CCNS* Patient Navigation Qualitative Study.

5. There are gaps and inefficiencies in communication and transfer of information among members of the cancer care team, especially among family physicians, community specialists, and oncologists, that interfere with the provision of timely, effective and compassionate care. Specific examples include:
   - Delays in diagnosis, reported by patients through the Patient Navigation Study, and identified by physicians in this study
   - Family physicians' perceptions that it is difficult to get an appointment with a specialist
   - Oncologists' perceptions that referring physicians communicate incomplete patient information or do not send information in a timely manner.
   - Family physicians' perceptions that they receive unclear or incomplete guidelines for continuing care when patients are returned to their care.
   - The patient's waiting experience is a time of high anxiety, and these gaps contribute to their anxiety.

6. Physicians are not aware of and/or under-utilize several community resources; e.g., Nova Scotia's Pink Rose Program, Canadian Cancer Society's Information Service (i.e., 1-888 number).

Section 2 - Educational Needs

7. Respondents identified specific perceived learning needs across the continuum of cancer care including:*
   - Prevention for family physicians (especially environmental factors and counseling in specific situations)

- Screening and diagnosis for family physicians (especially genetic/hereditary testing and screening for different types of cancer)
- Treatment and continuing care:
  - For family physicians, priority topics were symptom management, pain management and supportive/palliative care.
  - Priority skills for which CME would be useful for family physicians include 'administration of nerve blocks for pain' and 'initiation and administration of intermittent medications'
  - For community specialists, priority topics were chemotherapy, surgery and symptom management.

  ** please refer to Results section of report for specific topics.*

8. Communication between patients and physicians is an important learning area.
   - Family physicians and community specialists indicated a need to improve their communication and grief management skills*, despite the fact they felt they were generally performing above an average level in these skills.
   - Patients in the Patient Navigation Study reinforced the need for improved physician communication skills, especially with regard to compassionate delivery of the diagnosis.
   - Family physicians indicated that "improved communication with patients and their families about cancer…" was the second-highest rated expectation for how CME programs would impact their practice.

   ** please refer to Results section of report for specific topics*

9. Family physicians indicated that "being able to play a larger role in treatment of my patients with cancer" was a highly-rated expectation for how CME programs would impact their practice. Patients from the Patient Navigation Study supported this, indicating that they would prefer to have their family physicians play a larger role in their cancer care.

Section 3 - Learning methods and clinical resources

10. Physicians' indicated that "informal" learning methods were more highly preferred as compared to formal CME programs. Family physicians rated "checklists for continuing care" most highly, followed by "a help line to oncologists". Community specialists rated "a database of oncologist resources" most highly.

11. The preferred formal learning method was "combined lecture and interactive activities".

12. The preferred types of CME programs for both family physicians and community specialists were those which incorporated cancer care into existing Dalhousie CME programs (e.g., annual Dalhousie Refresher Programs held centrally, and Community Hospital Programs held locally), and 1-2 day symposia.

13. Family physicians in 5 of the 7 District Health Authorities outside the two tertiary care centers indicated they would prefer to attend CME programs locally rather than in a central location.

14. The most valuable clinical resources are local palliative care programs (where available) and telephone consultations with oncologists. Websites were used by less than 60% of respondents.

15. Oncologists are very willing to assist with CME interventions for community physicians, including development of appropriate checklists for continuing care, and stressed the value of interactive, patient-related teaching methods.

Section 4 - District Cancer Program

16. Most oncologists interviewed were unaware of the proposed District Cancer Program.

17. Family physicians' preferred roles in providing cancer care in their communities included screening and early detection, prevention, pain and symptom management, and supportive care. However, these were influenced by the year the physician graduated, size of the community where they practice, and the number of patients with cancer that are seen annually.

18. Slightly over half of family physician and community specialist respondents believed a part-time Medical Coordinator could be of assistance. The majority indicated that this person should provide advice concerning side effects of therapy and chemotherapy administration, and teach about therapies and side effect management.

19. Oncologists indicated that their role in the DCP could be to educate and provide support to the Medical Coordinator. Roles of the Medical Coordinator could include coordination of chemotherapy outside the two cancer centers, and liaison between the cancer centers and community physicians.

Dissemination

20. The Physicians Advisory Committee, the Education Advisory Committee and the *CCNS* Coordinators Group view this report as a valuable tool for improving cancer care in NS, and raise valuable questions for further exploration and suggestions for implementation.

RECOMMENDATIONS

Recommendations address the key objectives of the study and are based upon the conclusions. As *CCNS* considers the report, they are reminded that, to date, the Education Advisory Committee, Physicians Advisory Committee and the *CCNS* Coordinator Group have reviewed and offered insightful responses to preliminary results. Their responses should be incorporated into future discussions and recommendations for implementation. Additionally, *CCNS* is also reminded that the Physicians Needs Assessment is one of a series of needs assessments undertaken by *CCNS*, and results should be considered in light of those of the other studies to enable a coordinated and interdisciplinary approach to cancer care.

Current challenges in cancer care
It is important to note that many of the conclusions and subsequent recommendations included in this section support those of prior studies undertaken by *CCNS*; i.e., the *Patient Navigation: Qualitative Study*, August 2000, *Patient Navigation: Clearing a Path for Patients, Round Table Action Plan*, April 2001, and *The District Cancer Model: A Community-Based System of Care*, August 2000. They address complex issues requiring collaborative, comprehensive and thoughtful responses developed over time.

1. Respond to identified gaps and inefficiencies in communication and information-sharing among members of the health care team, particularly family physicians, community specialists and oncologists, by:
   a. Establishing a collaborative working group comprised of representative family physicians, community specialists, oncologists, and patients. Tasks of this group should include:
      - Identify specific problem areas as identified in this and other reports.
      - Clarify specific issues and perspectives within each area
      - Recommend strategies for improvement to appropriate bodies
      - Coordinate and oversee their implementation
      - Monitor and evaluate progress using a quality improvement model
   b. Developing a comprehensive approach to respond to patients' difficulties navigating the cancer care process, building upon initiatives undertaken to date. For example:
      - Evaluate the impact of the current Patient Navigation Qualitative Study and respond to findings of this evaluation.
      - Through collaborative efforts with patients, physicians and other health care providers, investigate other approaches to this problem.
   c. Exploring how family physicians can play a larger role in the care of their cancer patients and the steps required to implement this, utilizing a collaborative working group of family physicians, community specialists, oncologists and patients.

2. Address systemic factors which interfere with physicians' ability to provide comprehensive cancer care; e.g., lack of reimbursement codes which reflect the time required for patient counseling throughout the continuum of cancer care.
   - This should be undertaken in collaboration with appropriate bodies; e.g., Medical Society of NS, Department of Health.

3. Increase awareness and use of community resources using a comprehensive approach. Suggested initiatives include:

- Receive specific feedback from physicians regarding the most useful resources and the most effective way to provide information about them.
- Learn how other provincial cancer care programs have addressed this problem.

4. Undertake initiatives to improve patient and public education addressing the importance of cancer prevention, accepting responsibility for own health, and screening for breast, cervical and prostate cancer. Suggested initiatives include:
   - Form a working group of patients, physicians and other health professionals to serve as an advisory committee, to determine areas of greatest need and advise regarding material development, dissemination, literacy levels, etc.
   - Compile a resource of public and patient educational approaches used in other provincial cancer care programs.

5. Raise awareness about the District Cancer Program through a coordinated approach involving tertiary care centers and the districts and conduct further planning for its implementation.
   - Consider the specific needs and demographics of each district when implementing the community-based models and developing the role of the part-time Medical Coordinator. Recognize that the DCP model may vary from district to district.

Learning needs of family physicians and community specialists
The needs assessment highlighted self-identified learning needs for physicians across the continuum of cancer care, their preferred methods for learning and factors which influence learning.

6. Begin immediately to develop and implement a program that addresses the identified priority learning topics across the continuum of cancer care:
   - Prevention for family physicians: environmental factors and counseling in specific situations
   - Screening and diagnosis for family physicians: genetic/hereditary testing and screening for different types of cancer
   - Treatment and continuing care:
     - For family physicians priorities included: symptom management, pain management and supportive/palliative care.
     - Skills for family physicians: 'administration of nerve blocks for pain' and 'initiation and administration of intermittent medications'
     - For community specialists priorities included: chemotherapy, surgery and symptom management.
   - Communication between patients and physicians; especially compassionate delivery of the diagnosis and grief management skills.

7. Implement programs using the preferred learning methods identified in this report:
   - Informal methods: checklists for continuing care and a help line to oncologists for family physicians; a database of oncologist resources for community specialists.
   - Formal methods: combined lecture and interactive activities.
   - Incorporate into existing Dalhousie CME programs.
   - Offer CME interventions locally as much as possible.

8. Implement initiatives to develop a strong foundation for continuing education in cancer care:
   - Work with the tertiary care cancer programs to critically review, compile and disseminate the evidence for cancer screening protocols and care guidelines. (This may best be undertaken as a national initiative in collaboration with other cancer centers.)

   - Use an evidence-based approach to developing the continuing education plan. Research has demonstrated that educationally-sound and effective CME interventions tend to use interactive methods, are directly related to patient care (e.g., checklists for continuing care), and are multi-faceted as opposed to being a single intervention (e.g., a symposium followed by local community programs).

   - Use objective statistical data compiled by the *CCNS* Epidemiology and Surveillance Office for cancer incidence and mortality rates by district health authority, to supplement the subjective data collected by this report to ensure priority areas are targeted.

   - Develop cancer care educational resources and inventories of CME programs and interventions; e.g., CME programs offered over the past 5 years in NS, and continuing education programs offered by other provincial cancer care programs

   - Collaborate with existing educational programs in communications skills to develop and provide programming in this area; e.g., the Dalhousie Faculty of Medicine Communication Skills Program and Learning Resource Centre, Nova Scotia Professional Support Program (through the Medical Society of Nova Scotia), Bayer Communication Skills Program.

9. Establish a Physicians Education Advisory Sub-Committee, reporting to the *CCNS* Education Advisory Committee, and ensuring representation of family physicians, community specialists, and oncologists (or use the existing Physicians Advisory Committee), to:
   a. implement recommendations 6, 7 and 8, listed above.
   b. develop a coordinated continuing education plan for programming.
   c. make recommendations to the *CCNS* Education Advisory Committee regarding implementation of the plan.
   d. oversee the long-term implementation, evaluation and improvement of the continuing education plan.

REFERENCES

Davis DA, Thomson MA, Oxman AS, Haynes RB. Evidence for the effectiveness of CME. A review of 50 randomized controlled trials. JAMA 1992;268(9):1111-1117

Davis D, Thomson O, Brien MA, Freemantle N. Wolf FM, Mazmanian P, Taylor-Vaisey A. Impact of formal continuing medical education: Do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or healthcare outcomes? JAMA 1999;282(9):867-874.

Dillman DA. Mail and telephone surveys: the total design method. New York: John Wiley and Sons, 1978

Miles MB, Huberman AM. Early steps in analysis. In: Qualitative data analysis: an expanded sourcebook. 2nd Ed. Thousand Oaks, CA: SAGE Publications, 1994:50-89.

Patton MQ. Qualitative analysis and interpretation. In: *Qualitative evaluation and research methods.* 2nd ed. Newbury Park, CA: SAGE Publications, 1990:371-459.

QSR NUD*IST 4 for Macintoshes. Qualitative Solutions & Research Pty. Ltd., 1997. (http://www.qsr.com.au)

Strauss A, Corbin J. *Basics of qualitative research.* 2nd Ed. Thousand Oaks, CA: SAGE Publications, 1998.

APPENDIX A: Physicians Needs Assessment Advisory Group

MEMBER'S NAME	FACILITY	JOB TITLE
Barclay, Dr. Spencer	Aberdeen Hospital	Family Physician
Barnard, Dr. Dorothy	IWK Health Centre	Pediatric Oncologist
Bentley, Dr. Jim	QEII Health Sciences Centre	Gyne Oncologist
Cussen, Dr. Michael	Hants Shore Community Health Centre	Family Physician
Dorreen, Dr. Mark	QEII Health Sciences Centre	Medical Oncologist
Farrell, Dr. Gerry	Aberdeen Hospital	Family Physician
Fleming, Dr. Michael	Dalhousie University	Family Physician, Dal CME
Gallant, Dr. Paula	Valley Regional Hospital	General Surgeon
Gray, Dr. Jean	Dalhousie University	Associate Dean, Dal CME
Harrigan, Dr. Lynne	Valley Regional Hospital	Internal Medicine
Leahey, Dr. Shelagh	Yarmouth Regional Hospital	Chief of Staff, Family Physician
MacCormick, Dr. Ron	Cape Breton Regional Healthcare Complex	Director of Medical Oncology
MacCormick, Dr. Shaun	District Health Authority #4	Acting Medical Director, District 4 , Family Physician
Mulroy, Dr. Liam	QEII Health Sciences Centre	Radiation Oncologist
Murray, Ms. Anne	*Cancer Care Nova Scotia*	Education Coordinator
Padmos, Dr. Andrew	QEII Health Sciences Centre	Associate Dean, Cancer Programs *Cancer Care Nova Scotia* – Commissioner
Sargeant, Ms. Joan	Dalhousie University	Director of Program Development and Evaluation, DAL CME
Sellon, Ms. Marlene	QEII Health Sciences Centre *Cancer Care Nova Scotia*	Pharmacist
Simpson, Ms. Judy	QEII Health Sciences Centre	Coordinator, Palliative and Supportive Care, *CCNS*

APPENDIX B: District Cancer Program

One of the goals of *Cancer Care Nova Scotia* is for Nova Scotians to have the same standard of cancer care across the province. No matter where you live in Nova Scotia, you should be able to receive the same high quality care.

To this end, *Cancer Care Nova Scotia (CCNS)* is working on an overall provincial cancer system for adults and children. Each District Health Authority in Nova Scotia will have a District Cancer Program (DCP). These programs will form a network of cancer services across the province.

The District Cancer Programs will bring cancer prevention, screening, diagnosis, some types of treatment, support and palliative care closer to home for all cancer patients — adults and children. Patients will continue to go to the Cancer Centres in Halifax and Sydney to receive some kinds of treatment like radiation, and specialized chemotherapy and surgery.

To reduce travel by patients, some districts have opened outreach clinics, in partnership with the Cancer Centres, where oncologists (cancer doctors) can see patients. District Cancer Programs will only be successful if they are supported by the health professionals, volunteers and people who live in the districts.

CCNS staff have been to all of the districts to meet with key people to discuss our ideas for DCPs.

Public meetings were also held in each district in the fall of 2001 and spring 2002. At these meetings, *CCNS* staff presented information about our work. Participants were able to tell us how they see our ideas working in their districts.

Another early step towards developing DCPs will be to bring together the many people and organizations that provide cancer services in each district. We believe that gaps in service and duplication of services can be reduced if the people who provide cancer services work together towards common goals. One way this may happen is through District Cancer Committees. It will be important for patients and families to be part of these committees.

Pictou County Health Authority and Colchester East Hants Health Authority have already taken the first steps towards establishing District Cancer Committees.

For more information, please contact:
Jill Petrella, Quality Coordinator

Cancer Care Nova Scotia
Phone: (902) 473-2936
Fax: (902) 473-4631
Email: jill.petrella@ccns.nshealth.ca

APPENDIX C: Summary of literature search

Cancer Screening and Preventive Counseling

Screening tests

Five needs assessment studies focused on cancer screening and detection, four of which were conducted in the United States and one in Australia. Three of these studies examined physicians' current attitudes and cancer screening practices. Based on self-reports, it appeared that at least 90% of physicians were performing pap tests, breast physical, digital rectal, and prostate examinations. However, Holleb (1985) reported, with the exception of breast physical examinations and Pap testing, less than half of these physicians were following the screening guidelines recommended by the American Cancer Society (ACS) for early detection. Many physicians were not performing these tests at the recommended frequency or with the recommended age groups. There was a tendency for physicians to do these tests more for patients between the ages of 50 to 75 and not at the recommended level for those who were outside of this range (Constanza et al., 1993).

By 1989, 80% of physicians reported that they were screening more asymptomatic patients for cancer than they did five years earlier. Moreover, according to Holleb (1990), more physicians were following the ACS's guidelines in 1989 than in 1985. For example, there was an increase from 11% to 37% of physicians who followed the published guidelines for mammography. By 1993, over 80% of physicians reported that they routinely performed these tests to asymptomatic patients. These findings indicate that there has been a significant increase in the frequency with which physicians perform screening tests to asymptomatic patients and an increase in their compliance with the American Cancer Society's guidelines (Holleb, 1985 & Holleb, 1990).

Preventive counseling

Some of the needs assessments also explored physicians' attitudes and current practices with preventive counseling. Family physicians reported that they counsel patients about smoking cessation, nutrition, and breast self exams. Counselling about skin cancer was also done, but not as frequently. Although most FPs indicated that they provide preventive counseling, the frequency that they engaged in reinforcement practices with their patients (e.g., advise patients to eat vegetables, or prescribe nicotine gum) were shown to contradict their reports as they often did not advise these behaviours (Constanza, 1993). Generally, physicians were positive about counseling, but they also identified several barriers that interfere with their ability to counsel: lack of patient educational materials, lack of reimbursement for the time it takes to counsel, and also, some felt they lacked counselling skills (Constanza, 1993; Holleb, 1990).

Educational needs

Three needs assessments explored physicians' educational needs and interests with respect to specific screening and detection practices, i.e., breast and skin cancers (Constanza, 1993; Lane, 1989; Ward & Macfarlane, 1993). In the Constanza (1993) assessment, physicians indicated that they would benefit from a comprehensive course that emphasized relevant recent basic research and clinical evidence, as well as practical knowledge about cancer detection and prevention. They also thought it would be useful to complete a course in improving office management to make cancer screening more efficient.

According to Lane and Burg (1989), topics of greatest interest for Continuing Medical Education (CME) included improving patient compliance, risk factors, and patient education. There also appeared to be a need for improving patient communication and physicians' patient education skills to enhance compliance, especially since 45% of women who never had a mammogram

reported that their family physician never recommended it. It was also suggested that some physicians may need some education with practical hands-on skill training.

Ward and Macfarlane (1993) conducted a needs assessment to identify educational needs in the areas of skin cancer prevention, early detection and management for the purpose of planning a seminar about skin cancer for general practitioners. Physicians reported a need to learn about recognizing early melanoma and reviewing the basic clinical skill of total skin examination.

Palliative care

Four needs assessments examined physicians' current practices, perceived educational needs related to palliative care issues and preferred learning methods. These studies were conducted in Australia, Saskatchewan, the United Kingdom, and British Columbia from 1993 to 2000. The following learning needs were identified:

According to Haines et al. (1993), physicians in Regina, Saskatchewan indicated that their learning needs were pain assessment and management, symptom control, community resources, and communication. Although family physicians also recognized a need for communication and emotional support, they did not translate this into a priority for physician learning.

Higginson's (1999) needs assessment identified the following learning needs for physicians in London, UK: improved communication, liaison, and information between health care professionals; pain and symptom management (guidelines on drugs to use); details of available equipment; also family physicians may have limited information about available services.

Samaroo's (1996) needs assessment in Vancouver, BC, examined physicians' and nurses' perceived educational needs related to death and dying. They indicated that their top education needs for providing quality palliative care were: programs that focus on the dying process; patient pain, symptom and comfort control, and interdisciplinary communications between the patient, family and caregivers.

Wakefield et al. (1993) identified a need for continuing education, for South Australian physicians, in the areas of pain and symptom control, dealing with patients' psychosocial needs, and in bereavement counseling. Based on these findings, Boakes et al. (2000) developed and implemented a 14 week training program, using a hands on approach, to improve family physicians' knowledge and skills in palliative care. They concluded that "the development of experiential educational programs should be fostered, especially in areas such as palliative care, where communication, crisis intervention, and compassionate caring are as important as the knowledge of complex symptom syndromes and their management" (p.18).

Surgical oncology networking

Cancer Care Ontario conducted a needs assessment in 1999 with general, specialty and oncology surgeons to examine their current networking practices and learning needs in an effort to enhance the Surgical Oncology Network strategic plan. The majority of respondents (94%) reported that they had adequate access to colleagues for consultation purposes related to surgical oncology issues. However, since the database of surgical oncologists was not very highly endorsed, Cancer Care Ontario indicated that they need to highlight and promote its usefulness. A need was also identified for promoting the usefulness of standards of care and

outcome measures as surgeons appeared to be uncertain about the value of these concepts. Ontario surgeons only expressed a mild interest for the educational topics provided, 65% were in favour of evidence-based decision-making and 60% for critical appraisal.

Conclusions from the literature review:

- A small number of studies of physician practices, attitudes and learning needs related to cancer screening, preventive counseling and palliative care were reported. We considered the methods and results of these studies in the development of our tools.
- Needs assessments related to physician screening and detection practices have not been conducted since 1993.
- Only a couple needs assessments have examined the current practices and educational needs of Canadian physicians.
- There have been no comprehensive needs assessments reported that have examined current practices and learning needs of physicians with regards to the whole spectrum of cancer care (i.e., screening, prevention, diagnosis, treatment, follow-up, and palliative care)
- In light of this, there is an opportunity for this *Cancer Care Nova Scotia* and Dalhousie Continuing Medical Education physicians' needs assessment to make a significant contribution to the literature as it addresses the whole spectrum of cancer care. It will provide up-to-date information about physicians' current practices and learning needs, and it will specifically address the needs and challenges of Nova Scotian physicians.

REFERENCES

Boakes, Jolee, Deborah Gardner, Kevin Yuen and Susan Doyle. (2000). General Practitioner Training in Palliative Care: An Experimental Approach. *J. Palliat. Care*. 16 (2): 11-19.

Cancer Care Ontario. (1999). Surgical Oncology Network Needs Assessment Survey. Hamilton, ON: Surgical Oncology Network, Cancer Care Ontario.

Costanza, Mary E., Hopple, Nancy E., Gaw Victoria P. and Stoddard, Anne M. (1993). Cancer Prevention and Practices and Continuing Education Needs of Primary Care Physicians. *Am. J. Prev. Med*. 9 (2): 107-112.

Haines, Carol S. and Zachariah Thomas. (1993). Assessing Needs for Palliative Care Education of Primary Care Physicians: Results of a Mail Survey. *J. Palliat. Care*. 9 (1): 23-26.

Higginson, Irene. (1999). Palliative Care Services in the Community: What do Family Doctors Want? *J. Palliat. Care*. 15 (2): 21-25.

Holleb, Arthur I. (1985). Survey of Physicians' Attitudes and Practices in Early Cancer Detection. *CA*. 35 (4): 197-213.

Holleb, Arthur I. (1990). 1989 Survey of Physicians' Attitudes and Practices in Early Cancer Detection. *CA*. 40 (2): 77-101.

Lane, Dorothy S. and Burg, Mary Ann. (1989). Promoting Physician Preventive Practices: Needs Assessment for CME in Breast Cancer Detection. *J. Contin. Educ. Health Prof.* 9 (4): 245-56.

Samaroo, Bethan. (1996). Assessing Palliative Care Educational Needs of Physicians and Nurses: Results of a Survey. *J. Palliat. Care*. 12 (2): 20-22.

Ward, Jeanette and Macfarlane, Sally. (1993). Needs Assessment in Continuing Medical Education: Its Feasibility and Value in a Seminar about Skin Cancer for General Practitioners. *Med. J. Aust.* 159 (1): 20-3.

APPENDIX D: Oncologist and Cancer Specialist Interview Questions

Introduction: *CCNS* is conducting a needs assessment of the learning and support needs of family physicians and community based specialists in the provision of cancer care. To accomplish this, we have asked physicians in NovaScotia to complete questionnaires identifying their own learning needs. We also wish to interview oncologists and cancer care specialists who receive referrals from family physicians and community based specialists to learn their perceptions of the learning and support needs of these physicians with regard to cancer care and the best way to meet them.

1. Based upon your perspective as an oncologist/cancer specialist and the frequency and types of referrals you receive from family physicians, what kinds of needs or gaps in care do you see that might be addressed by education?

   1.1 Prompts:
   Do you see particular education needs in these areas:
   - Cancer prevention?
   - Screening?
   - Diagnosis?
   - Treatment?
   - Follow up?
   - Palliative care?
   - Other?

   1.2 Prompts: Do you see particular education needs in skills development (e.g.: communication, chemotherapy), or attitude changes (e.g.: about screening practices)?

   1.3 Prompts: Do education needs for community based specialists differ?

2. Do you think the learning needs of family physicians and community based specialists differ between the nine district health authorities? If yes, in what ways?

3. What would you suggest as the best way/s to meet these specific needs of family physicians?

   3.1 Prompts:
   What kinds of methods of providing information and education would you suggest:
   - Workshops?
   - Internet?
   - Case studies?
   - Lectures?
   - "Helpline" to an oncologist?
   - Preceptorships?
   - Checklists for continuing care of patients?

   3.2 Prompts:
   Do the ways to meet the education needs of community based specialists differ?

4. What do you see as the role of oncologists in meeting these needs?

4.1 Prompts:

- Should oncologists provide all or some of the education sessions?
- What support would you need to do this? (e.g.: locum, compensation, logistical support)
- Are you willing to travel?
- Who else could provide these education sessions?

5. The following two questions address concerns identified by family physicians and/or patients in the care of cancer patients. One problem identified was the long waiting period from the time of referral to the time of cancer specialist appointment. Do you perceive this as a problem? If so, what suggestions would you make to improve or prevent this problem?
What supports or resources are needed to implement these suggestions?

6. Family physicians also indicated that they believed that better communication with cancer specialists about their patients could improve cancer care. What are you thoughts about this? What suggestions would you make to improve communication?

6.1 Prompts:

- Family physicians identified that checklists and/or an oncologist helpline would be helpful to them. What to you think of these suggestions?
- Is it realistic to expect oncologists and cancer care specialists to develop/provide these services?
- What kind of supports would you need to provide these services?

7. *CCNS* is implementing a District Cancer Program, a community-based model for caring for patients in their community. To enable patients to be treated closer to home, it has been suggested that a part-time Medical Coordinator, with specialized education in cancer care, could play a supportive role in each District Health Authority.
Have you heard of this? What would you see as the role of this position?

7.1 Prompts:

- What would you see as the role of an oncologist in this model?
- What would you see as the role of family physicians in this model?
- What would you see as the role of community based specialists in this model?

8. Are there any other comments you would like to make about physician learning or support needs in caring for patients with cancer, and ways to address them?

APPENDIX E: *CCNS* Patient Navigation Qualitative Study Executive Summary

The findings of *Cancer Care Nova Scotia's (CCNS)* Patient Navigation Study indicate that cancer patients and their family members are generally satisfied with the medical treatment they received once a cancer diagnosis was confirmed. Despite this positive finding, it is evident that improvement is needed relating to the initial diagnosis process and the non-medical aspects of cancer treatment. Perhaps most importantly, results suggest that *CCNS* should consider adopting a multi-disciplinary approach to the provision of cancer care service that addresses the medical, emotional and financial needs of those affected by cancer. Findings also confirm that there is a need for a service coordinator, similar to the patient navigator concept.

The family doctor's role during the initial diagnosis stage of the journey was viewed as problematic. Many patients were required to wait an unacceptable length of time before they received their diagnosis and in some cases, family doctors were seen as dismissing the concerns of their patients. Similarly, with regard to the initial diagnosis, the manner in which patients were informed that they had cancer was not always appropriate, with some learning of their diagnosis through a telephone conversation. All stakeholders viewed continuing education for family doctors, specifically in the area of oncology, as paramount to overcoming this issue. Likewise, establishing a standardized manner for which patients can learn of their diagnosis in person will also assist in improving service in this area.

Stakeholders also identified the need to heighten the family doctor's role in the treatment process. Currently, once the initial diagnosis is made, the family doctor generally loses contact with the patient and is unaware of the patient's treatment regime and progress. This creates an uncomfortable situation for both the patient and the family doctor when the patient is required to return to his/her family doctor for follow-up. Including family doctors throughout the entire journey would have great value and this was evident in those cases where the family doctor did take an active role.

Results suggest that a greater emphasis is needed on the non-medical aspects of cancer care. Patients and their families need assistance in adjusting to the diagnosis. They require someone to whom they can turn to get answers to their questions and concerns. There is a desire for a neutral party to whom they can talk to informally and who can affirm that the thoughts and feelings they are experiencing are normal. Many patients would also like to have the opportunity to meet with other people who have a cancer similar to their own. In these instances, patients and their families require assistance in accessing the supports that are available to them. Patients and their families need a central person who can put them in contact with the person and/or service that they require at any point in time.

Finally, patients and their families noted a financial burden associated with cancer that the system does not currently address. Most notably, people residing in rural parts of the province have to incur costly transportation and accommodation costs. In instances where patients do not have private health coverage, the costs associated with anti-medics, certain adjunct therapies and medical supplies can be quite costly. These costs are compounded when there is a loss of income due to a temporary exit from the workforce as a result of having cancer. Patients and their families need assistance in overcoming these financial issues and in getting in contact with the appropriate agencies to address these and other financial issues.

APPENDIX F: Specific topics identified for CME programs by community specialists

Grouped by General Topics:

CHEMOTHERAPY

Pediatricians: Side effects; Mechanism of action

Obs/Gyn: Update on gyne Rx; Newer ovarian drugs & results

Surgeons: Side effects (2); Current standard for Rx; Clinical trials available; Neoadjuvant treatments; Interferon & melanoma; Effects on wound healing; Melanoma; Breast cancer; Colon cancer; Success rate; What studies are ongoing

Internists: Long-term side effects; Colorectal; Gastric cancer; Managing blood products; Other GI; Colon cancer; Which agents to use in what malignancies; What to observe as complications; What to observe as complications; Lung cancer

SURGERY

Pediatricians: n/a

Obs/Gyn: Updates; Complications of surgery; Indications; Early endometrial Ca; Early cervical Ca

Surgeons: DCIS – Breast; Breast cancer elderly/infirmed; Latest innovation; How effects of surgery relate to adjuvant therapy; Limb salvage vs. amputation; Recommended margins; Current melanoma guidelines; New recommendations; New technology - sentinel node laparoscopic surgery; "How I do it"; Trick of trade/post-op Management; Breast cancer; Skin cancer; Does it help?; After effects; New technologies & equipment; Melanoma surgery; Cutaneous malignancy; Malignant melanoma

Internists: Colon cancer

HORMONE THERAPY

Pediatricians: n/a

Obs/Gyn: Indications; Benefits; Relating to breast cancer; Role in therapy; Role in causation/prevention; Pros/cons of; HRT in CaBr/CaOr/CaHT (??)

Surgeons: n/a

Internists: Little knowledge of this - any education would be welcome

RADIATION THERAPY

Pediatricians: n/a

Obs/Gyn: Updates

Surgeons: Role to play skin cancer; Are local standards etc. uniform with international standards?; Is it needed?; Side effects; Who gets what; In breast cancer; In rectal cancer; What is being used as opposed to what is reported in literature; Different protocol/studies; Colorectal cancer; Treatment of cutaneous skin cancers; XRT for SCC/BCC; Recommended doses; Guidelines for use

Internists: Lung cancer

ADJUVANT THERAPY

Pediatricians: n/a

Obs/Gyn: Updates; Effectiveness; Family involvement; What are the alternatives?

Surgeons: Combination Rx for Ca prostate; Salvage Rx for Ca prostate/bladder; Colon cancer; Malignant melanoma; Consensus?; Recommendations; How it relates to surgery; How to communicate "%" to patients; What's new

Internists: Use of WBI stim agent; Depression; Colorectal; Other GI; Colon cancer

ALTERNATIVE & COMPLEMENTARY THERAPIES

Pediatricians: n/a

Obs/Gyn: Avoidable modalities; Effectiveness; Diet; Vitamins, herbals, etc; What are the alternatives?; Updates

Surgeons: Reference to skin & breast carcinoma; Toxicities; What is available/used by patient; What is potential side effect; Availability; FDA approved?; Standards vs. "shot in the dark"

Internists: What are patients taking; What can happen; Proven therapies; Risks & adverse effects

PAIN MANAGMENT

Pediatricians: For procedures; Chronic pain

Obs/Gyn: Have morphine pumps; Oral meds/trying to avoid SE's; Updates

Surgeons: Pt controlled analysis; Nausea management; Terminal care; In hospital; As an outpatient; Chronic/dysesthetic pain; New pharmacology

Internists: Tx depression; When to refer – where; Most physicians have limited knowledge

SYMPTOM MANAGMENT

Pediatricians: Nausea etc. (2); Nutritional concerns; Febrile neutropenia; Anorexia

Obs/Gyn: Most distressing symptoms; Treatments for managing symptoms; Post-treatment Rx; Menopausal sx when HRT not indicated; Pelvic pain; Chronic pruritis

Surgeons: Specific to melanoma; The role of the palliative care team; Recurrent obstruction; Fatigue; Pain control; Nausea control

Internists: Pain (2); Management of cancer-realted cough; Management of dyspnea; Depression; Nausea

SUPPORTIVE & PALLIATIVE CARE

Pediatricians: Pain management; Psychosocial aspects

Obs/Gyn: Fatigue; Emotional support for families

Surgeons: Death with dignity; Living wills; Community & hospital; Recurrent breast cancer; Unresectable/untreatable cancer; How to measure "quality of life"; How to say "Enough is enough."; Use of surgery in palliative care patients

Internists: Pain management; Bowel care

ONCOLOGIC EMERGENCIES

Pediatricians: n/a

Obs/Gyn: Vaginal bleeding = ca

Surgeons: Spinal mets with acute symptoms; Treatment for chemo toxicity; List willing to take calls; Febrile leukopenia; Bone metatory calciucrines; When & what to watch for; Which test to confirm the problem; Recognizing them; Treating them

Internists: Hematologic malignancies, eg blast crisis; Clotting problems, eg with prostate cancer; Acute leukemia; Neutropenia; Management of complications; Precautions to observe in pts on chemo & other; Febrile neutropenia; Decreased level of consciousness

Other

Obs/Gyn: Surgical updates; Medical updates

Internists: Management of depression; Psychiatric manifestations

APPENDIX G: Education Advisory Group Terms of Reference & Membership

Accountability: The Education Advisory Group is accountable to the Executive of *Cancer Care Nova Scotia*.

Membership: The membership will be balanced amongst cancer specialists, health professionals, consumers, and educational experts. Representation will strive to reflect the geographic diversity of the population with the majority of the members coming from the District Cancer Programs. An Advisory Group Chairperson will be appointed by the membership.

Purpose: The Education Advisory Group will advise *Cancer Care Nova Scotia,* through the Education Coordinator, on educational programs for Health Professionals.

Liaison: The Education Advisory Group will liaise with other provincial cancer programs such as the Nova Scotia Breast Screening Program and the Hereditary Cancer Screening Program.

Responsibilities:

- To provide advice and leadership on the development and implementation of evidence-based and best practice educational programs in cancer for health professionals working at the primary, secondary and tertiary levels to ensure a quality-driven cancer system. Education programming should address the entire cancer spectrum from prevention to palliation.
- To advise on the following aspects of health professional education: needs assessment, program development, program implementation, and evaluation.
- To develop strategies to ensure equitable access to educational opportunities for all levels of health professionals, regardless of geographic location.
- To ensure that, where possible, education programs are based on the Standards of Care available for each health professional organization.
- To work co-operatively to promote interdisciplinary educational opportunities.
- To facilitate the recruitment of mentors to work with health professionals during their learning journey.
- To advise the Communication and Education Coordinators on the professional section of the *Cancer Care Nova Scotia* web site.
- To work in cooperation with provincial, national and international cancer programs in order to promote cancer care education.

Meetings: Meetings of the Education Advisory Committee will be held four times a year. Additional meetings will be held as required.

Voting: Decisions will be reached by consensus.

Reporting: The Education Advisory Group will report through the Education Coordinator at Board Meetings. In addition, the Group shall submit an annual report on its accomplishments and future initiatives to the Commissioner of *Cancer Care Nova Scotia*.

Term: The term of membership will be two years with half the membership being replaced each year. The accomplishments and Terms of Reference will be reviewed on an annual basis, each January.

The term of office for the Advisory Group Chair will be two years. A new chair will be appointed six months before the current chair retires.

Education Advisory Group Membership List:

Name	Title	Area
Heather Jewers	Palliative Care Nurse	St. Martha's Regional Hospital
Lisa Bourne	Radiation Therapist	Capital Health Cancer Care Program, QEII
Dorianne Rheaume	Radiation Oncologist	Capital Health Cancer Care Program, QEII
Shelley MacDougall	Consumer	Sydney
Sher Clain	Family Physician	Bridgewater
Donna Grant	Acting Health Services Manager	Capital Health Cancer Care Program, QEII
Anne MacCormick	Oncology Nurse	Cape Breton Cancer Centre
Deborah Gillis	Oncology Nurse	Cape Breton Cancer Centre
Ethel Ells	Oncology Nurse	Annapolis Valley Health
Michelle Kucey	Manager	Nova Scotia Community College
Jill Skinner	Pharmacist	Colchester East Hants Health Authority
Joan Sargeant	Director	Dalhousie CME
Mary Lou Ellerton	Professor	Dalhousie University
Allene MacIsaac	Department of Nursing	St. FX School of Nursing
Mark Dorreen	Medical Oncologist	Capital Health Cancer Care Program, QEII
Terry March	APPHON Coordinator	IWK Health Centre
Theresa Marie Underhill	Chief Operating Officer	*Cancer Care Nova Scotia*
Anne Murray	Education Coordinator	*Cancer Care Nova Scotia*
Kristina Allsopp	Secretary	*Cancer Care Nova Scotia*

Cancer Care
Nova Scotia

1278 Tower Road
5th floor Bethune Building
Halifax, NS B3H 2Y9
Phone: 902-473-4645
Toll free: 1-866-599-2267
Fax: 902-473-4631
Email: info@ccns.nshealth.ca
www.cancercare.ns.ca